

DON BLUTH'S  
*THE ART OF  
STORYBOARD*





**DON BLUTH'S**  
**THE ART OF**  
**STORYBOARD**









DON BLUTH'S

THE ART OF  
STORYBOARD







Publisher  
**MIKE RICHARDSON**

Editor  
**CHRIS WARNER**

Publication Design  
**DON BLUTH and DAVID MONAHAN**

Additional Design  
**MICHAEL DAVID THOMAS**

Technical Support  
**KEN CARRIGLITTO**

## **DON BLUTH'S THE ART OF STORYBOARD**

© 2004 by Don Bluth Films, Inc. All rights reserved. No portion of this publication may be reproduced, in any form or by any means, without the express written permission of the copyright holders. Names, characters, places, and incidents featured in this publication are either the product of the author's imagination or are used fictitiously. Any resemblance to actual persons (living or dead), events, institutions, or locales, without satiric intent, is coincidental. DH Press™ is a trademark of Dark Horse Comics, Inc., registered in various categories and countries. All rights reserved.

Unless otherwise indicated, all artwork and photographs are from Don Bluth Films archives and Don Bluth Toontalk photo library.

Published by  
**DH Press**

A division of Dark Horse Comics, Inc.  
10956 S.E. Main Street  
Milwaukie, OR 97222

[dhpessbooks.com](http://dhpessbooks.com)  
[darkhorse.com](http://darkhorse.com)  
[donbluth.com](http://donbluth.com)

First edition: September 2004  
ISBN: 1-59582-007-8

1 3 5 7 9 10 8 6 4 2  
Printed in China



# CONTENTS

## **Chapter One: CREATIVITY**

- 9 About the Filmmakers
- 11 A New Wave
- 14 Approaching Storyboard

## **Chapter Two: PRE-PRODUCTION**

- 20 The Setting
- 21 Storyboard Tools
- 22 Layout & Action
- 24 Getting Started

## **Chapter Three: PRODUCTION**

- 26 The Drawings
- 28 The Story Meeting
- 38 Placing the Camera
- 42 Staging & Silhouette

## **Chapter Four: TIMING**

- 44 Pacing Your Sequence
- 51 Timing Your Sketches

## **Chapter Five: MECHANICS**

- 54 The Set & Camera Placement
- 56 Hooking the Scenes Together
- 58 Designing for Levels
- 60 Making Notes
- 62 The Animatic

## **Chapter Six: BLOCKING**

- 65 *All Dogs Go to Heaven*

## **Chapter Seven: FOCAL POINT**

- 85 Final Boards: Lighting for Focus

## **Chapter Eight: CHOREOGRAPHY**

- 92 *Titan A.E.*

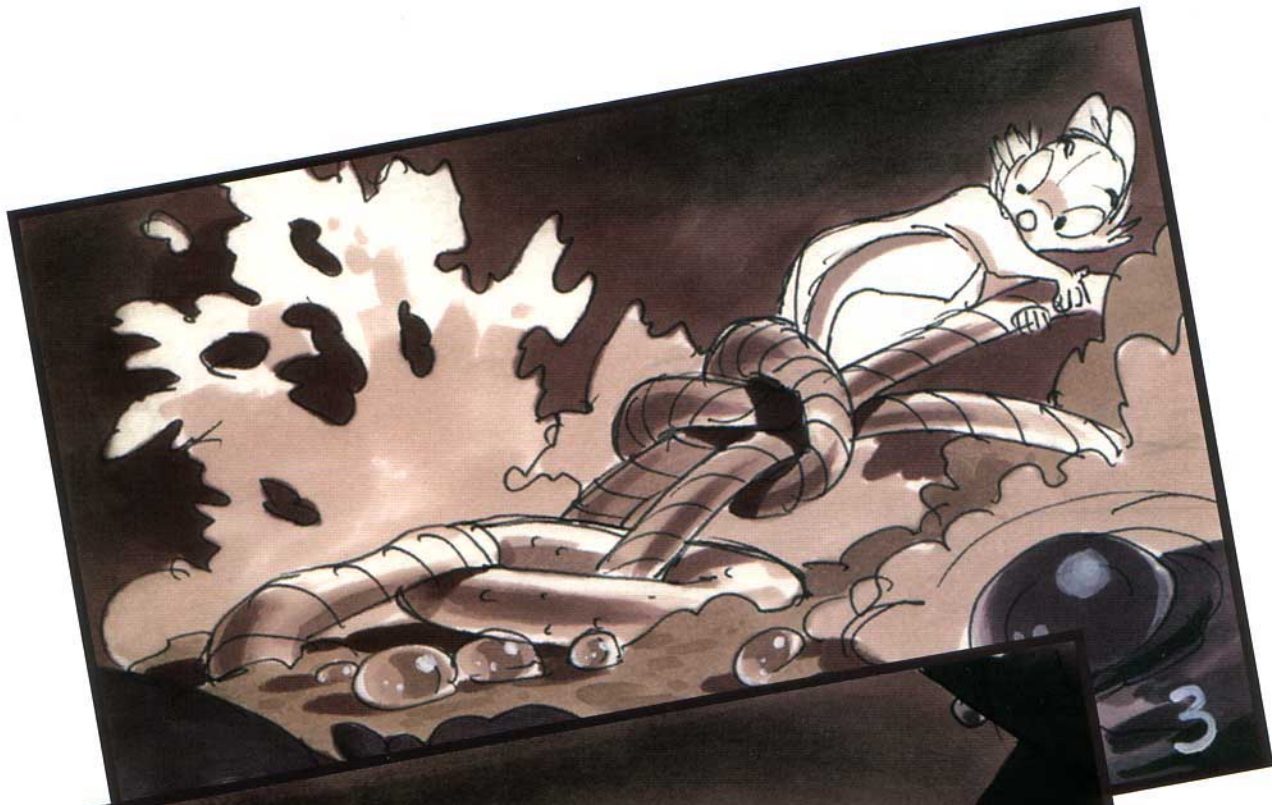
## **Chapter Nine: BOARDING A GAME**

- 99 *Dragon's Lair*

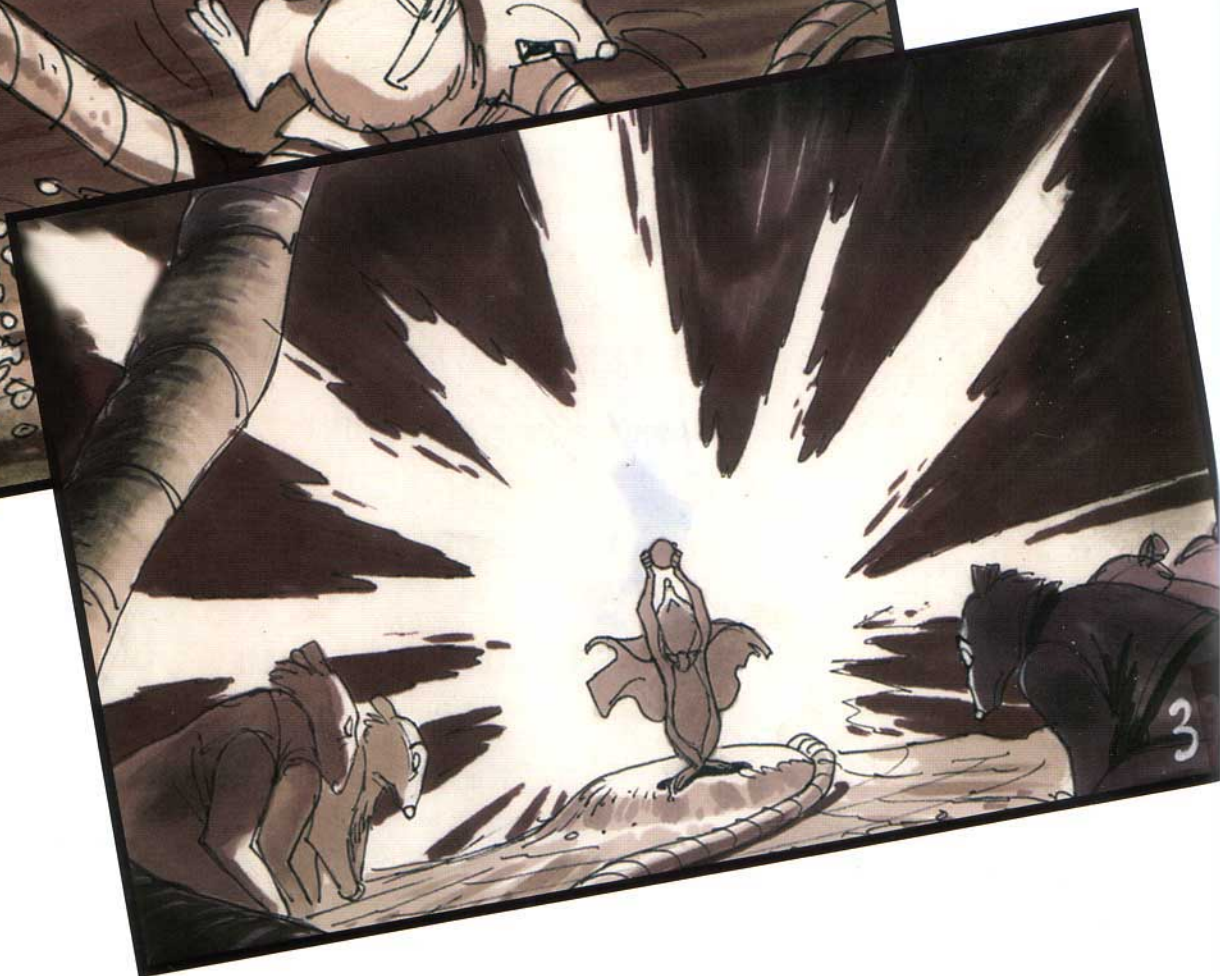
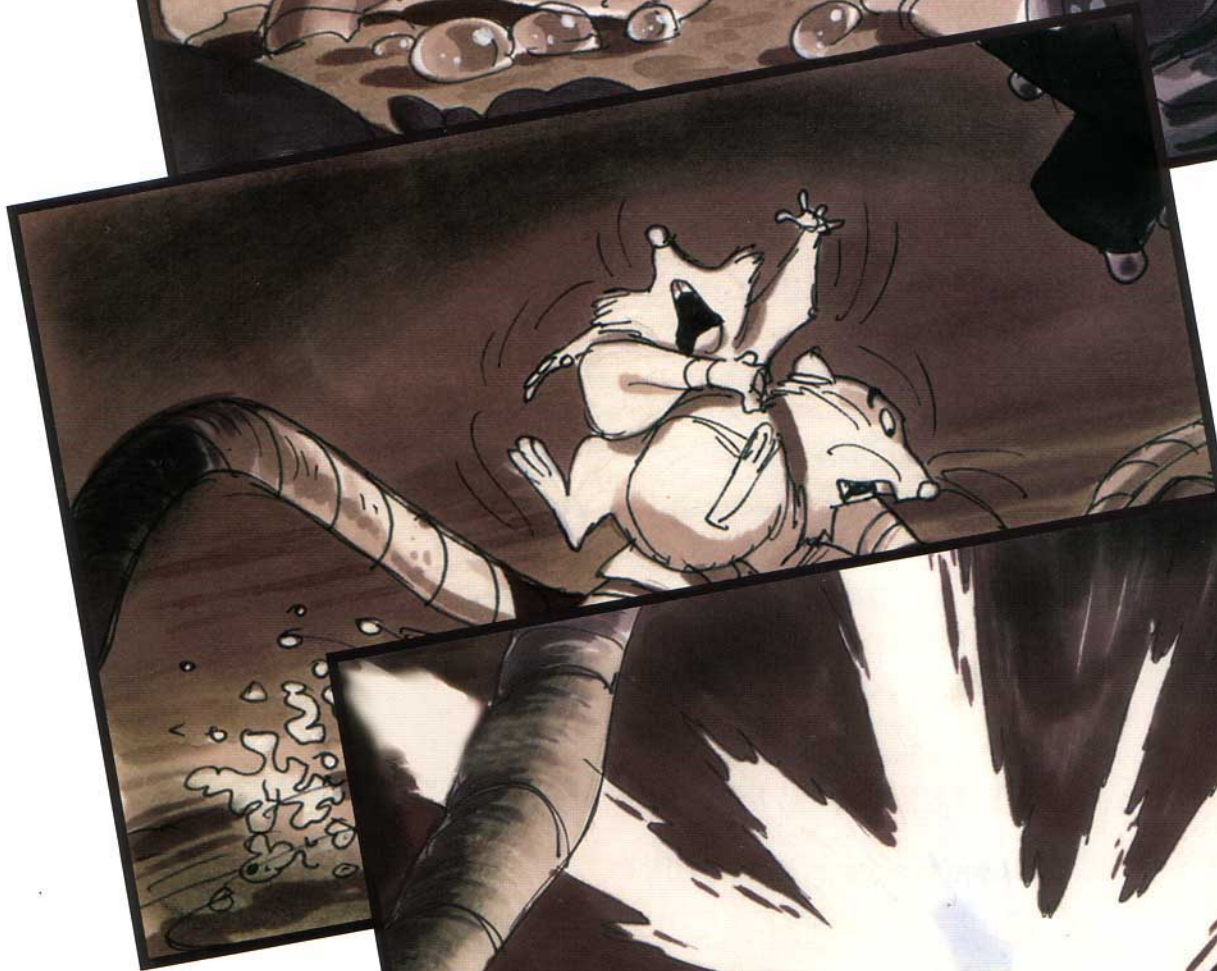
## **Chapter Ten: COLOR KEYS**

- 104 Color Keys
- 106 A Scary Story





3



3



# Introduction

I was four years old when I first saw *Snow White* at the Star Theatre in El Paso, Texas. Instead of sleeping peacefully in my bed that night, the movie played again and again in my mind. “A bolt of lightning to mix it well,” whispered the radiant queen as she quaffed the elixir in order to change herself into a twisted hag in a peddler’s cloak. With this gruesome image embedded in my mind, an infinitesimal atom in my soul stirred, grew wings, and took flight.

There is no explanation for my attraction to the medium, no psychological remedy to cool the fires that drive my own ambitions, and no diversion, however compelling or extravagant, that has derailed me from my love of the art.

By nature, I feel compelled to make a contribution to the art. It is the love of beauty and all its forms that attracts me. Walt Disney gave us all an inspiring gift! How can we not give something back, or at least, pass on what we have learned? And so, these pages are meant to inspire you, to help you understand the art of animation and maybe, if some small atom in your heart should stir, you will grow wings and take flight yourself. It could happen!

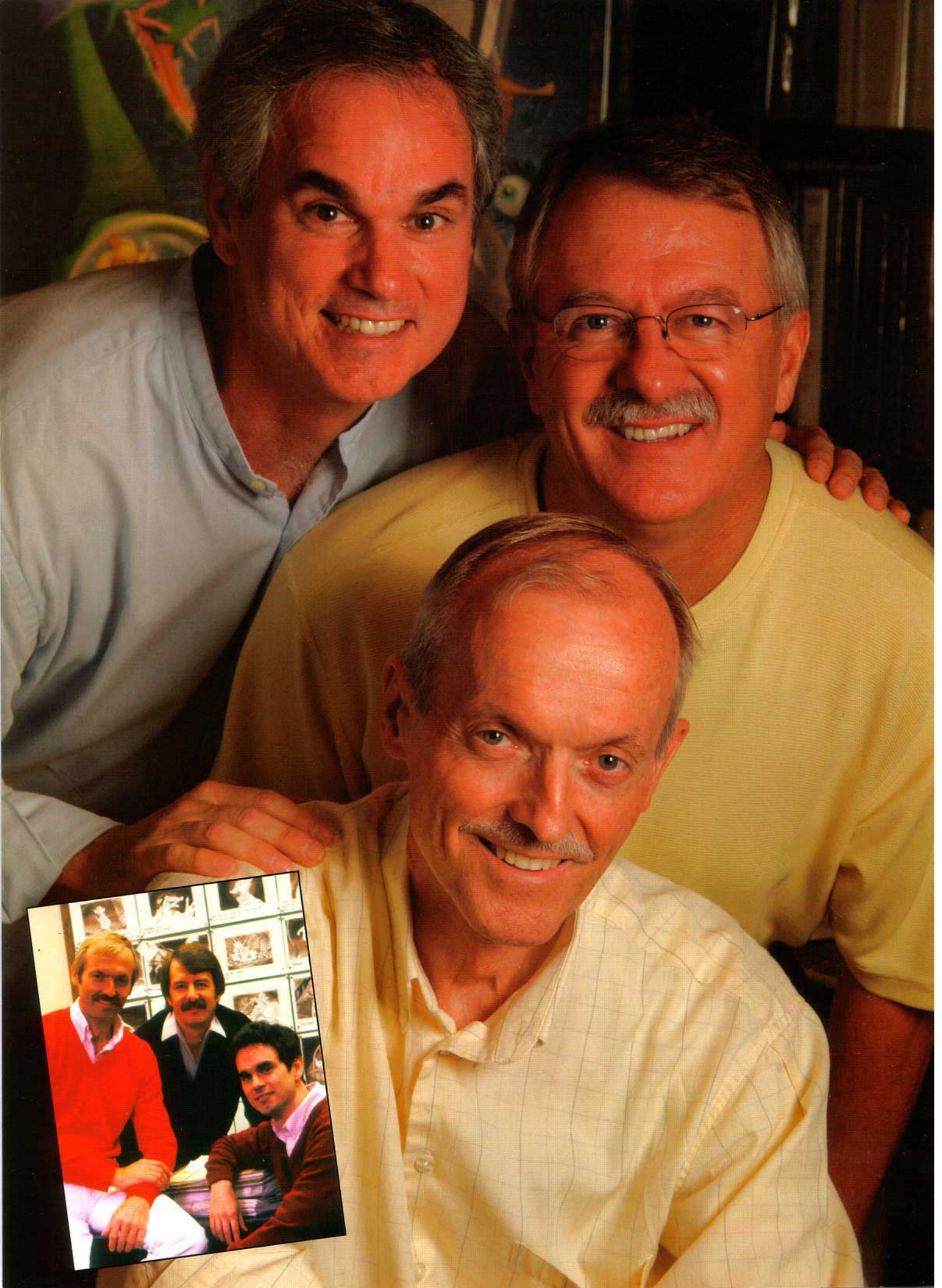


## Acknowledgements

This book would not have been possible without a great deal of support. First, we would like to thank the staff at Don Bluth Films, Inc., Don Bluth’s ToonTalk, Inc., and Bluth Group Ltd. Thank you, Dave and Aimee Monahan, John Hoffman, Cindy Nason, Ciara McCabe, Jason Carr, and all the artists and technicians we’ve worked with over the years.

We’d like to thank the friends, family, and colleagues who have supported us throughout this endeavor. Finally, we’d like to thank our fans, as well as those readers of ToonTalk publications and our “Ask Us” page at [donbluth.com](http://donbluth.com) who have let us know that this publication will be a useful tool for them. Thanks also for pointing out where we could improve the book so that we all can get the most out of it. Creating this book was a labor of love – our love of animation and our love of communication. We hope you enjoy it!







# CREATIVITY

## ABOUT THE FILMMAKERS

**D**on Bluth is one of the most acclaimed directors and animators in the industry. He is admired by his peers all over the world for his creative talents as well as his versatility in bringing memorable characters to life. He designs the characters, serves as Key Storyboard Artist, and when the mood strikes him, he has also been known to compose some clever songs and collaborate on most of the scripts for his projects.

Bluth was born into a family of seven children in El Paso, Texas. He grew up on a farm in Payson, Utah in a highly creative environment. Don was always drawing cartoons. It soon became his dream to work for Walt Disney. Upon graduation from high school in 1955, Don took a portfolio of his drawings to the Disney Studios in Burbank where he landed a position in the animation department as an in-betweener. Bluth worked at Disney from 1955 through 1956 on the classic motion picture *Sleeping Beauty*. He left after one year to follow other life pursuits, re-entered the animation field in 1967 at Filmation Studios, and finally returned to Disney in 1971. In 1979 Bluth, along with Gary Goldman and John Pomeroy, founded Don Bluth Productions.

Bluth's credits include: *Banjo The Woodpile Cat* (1979), *The Secret of NIMH* (1982), *Dragon's Lair* video game (1983), *Space Ace* video game (1984), *An American Tail* (1986), *The Land Before Time* (1988), *All Dogs Go to Heaven* (1989), *Dragon's Lair II: Time Warp* video game (1989), *Rock-a-Doodle* (1991), *Thumbelina* (1994), *A Troll in Central Park* (1994), *Pebble and the Penguin* (1995), *Anastasia* (1997), *Bartok the Magnificent* (1999), and *Titan A.E.* (2000).

Gary Goldman met Don Bluth at Walt Disney Studios in 1972. They formed an instant friendship which turned into a creative partnership that has lasted over thirty years.

Born in Oakland and raised in Watsonville, California, Goldman studied piano and enjoyed model-making and drawing. Before devoting himself entirely to the arts, he served as an elec-

tronics technician in the United States Air Force from 1962–1967. He received his Associate of Arts Degree from Cabrillo College near Santa Cruz, California. In December 1971, he graduated with a Bachelor of Arts degree in Life Drawing from the University of Hawaii.

In 1972, Goldman took a job at Walt Disney Productions as an in-betweener to legendary Disney animator Frank Thomas. Goldman's credits include *Robin Hood* (1973), *Winnie the Pooh and Tigger Too* (1974), and *The Rescuers* (1976). Gary also served as Directing Animator on *Pete's Dragon* (1977) and *The Small One* (1978). He has partnered with Don Bluth as animator, producer, and director on all of Bluth's films.

John Pomeroy was born in Los Angeles, California and attended Riverside City College before attending the Art Center College of Design as an illustration major. In 1973, after a two-year stint as an architectural draftsman for the University of California, Riverside, Pomeroy was hired by the Disney studios. His credits include *Winnie the Pooh and Tigger Too*, *The Rescuers*, *Pete's Dragon*, and *The Small One*.

At Don Bluth Productions, Pomeroy supervised animation and co-wrote stories on several films including *The Secret of NIMH*, *An American Tail*, *The Land Before Time*, *All Dogs Go to Heaven*, *Rock-a-Doodle*, *A Troll in Central Park*, and *Thumbelina*.

Pomeroy's fine-art paintings have been exhibited in galleries across the country and are currently on exhibition in New Orleans, Dallas, Santa Fe, and Palm Desert. He lives in Los Angeles with his wife, daughter, and two sons.

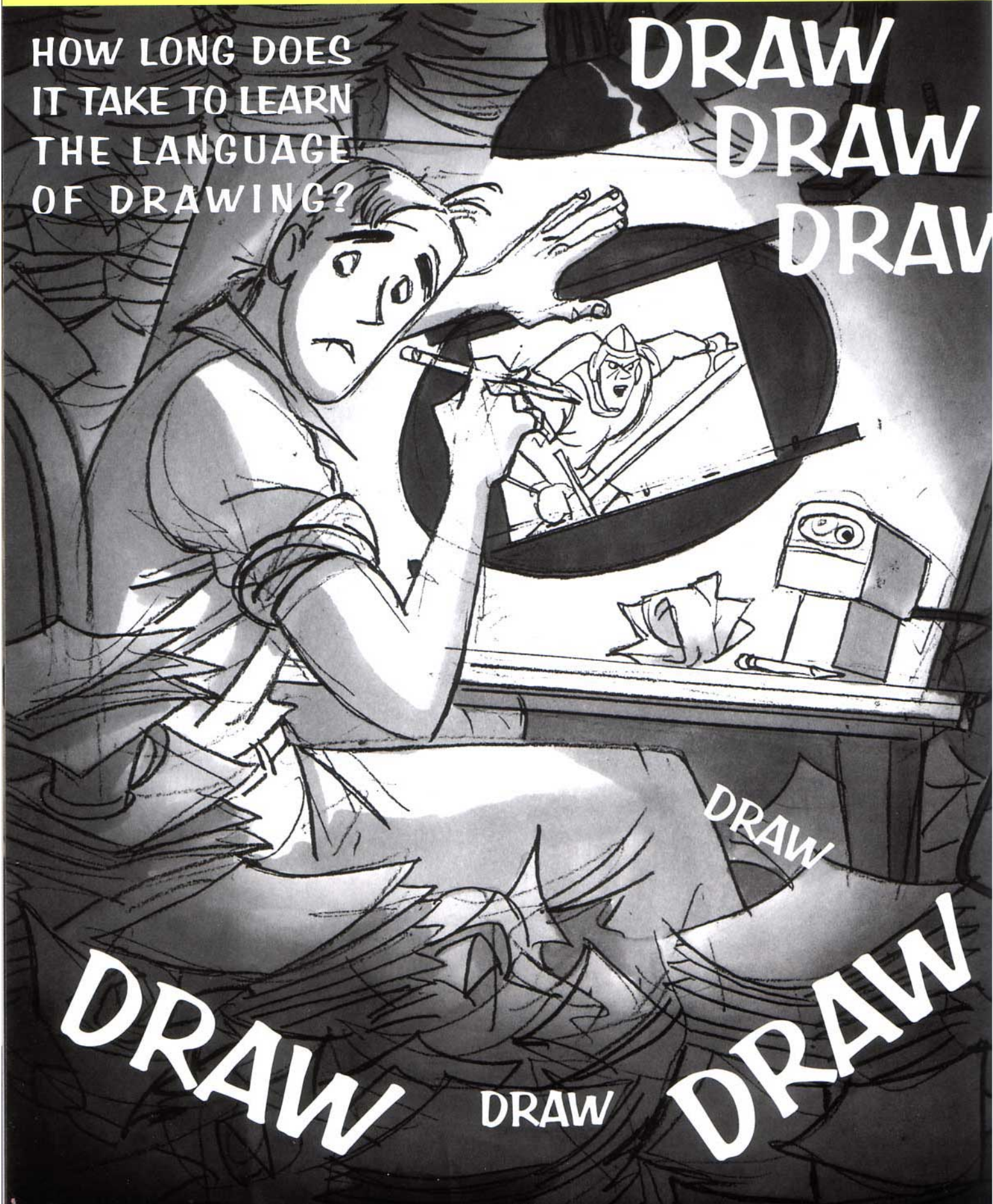
Don, Gary, and John have been members of the Academy of Motion Picture Arts and Sciences since 1976.



# CREATIVITY

HOW LONG DOES  
IT TAKE TO LEARN  
THE LANGUAGE  
OF DRAWING?

DRAW  
DRAW  
DRAW



DRAW

DRAW

DRAW



# A NEW WAVE

For many years, the fans on tour pushed and shoved their way through our animation studio in Dublin hoping to catch a glimpse of one of their favorite cartoon characters in an unguarded antic. While observing those onlookers, I often wondered how disappointing it must have been for them to have seen all those desks, hundreds of them, and hundreds of artists with pencils in hand, scratching ideas on little pieces of paper. How very unromantic.

One day, I nearly jumped out of my skin when a woman in a conservative brown suit said, "The computers do all the work nowadays, isn't that right?" "Well, if that is the case," I replied, "I wish someone would tell me. I've had a pain here in my right metacarpal for twenty years. Furthermore, I've saved enough pencil stubs to fill an Olympic-size swimming pool. Has the computer taken over?" I asked her. "I'm pretty sure you've fallen behind, Don," she replied, and then walked off.

When I finally did look up, it was the year 2000. She was right! I noticed that students of animation had ceased to be interested in drawing skills and were now inspired by movies like *Toy Story*, *Antz*, and *A Bug's Life*, all computer-generated films and box-office triumphs. Now, students invested their time and money to learn the hottest new CGI software to take advantage of the "fat cat" salary that would go with it. But I wondered if those students hadn't pitched the baby out with the bath?

There is great satisfaction that comes from mastering the language of the pencil. Sure, it's different and, of course, it takes time, but can you think of any discipline that isn't or doesn't? I can't! What better way could there be to articulate ideas from your imagination? The pencil is like an extension of your fingers, and the human hand is so very much wired into the electrical impulse of the brain, the mind, and the soul that I wouldn't miss this dance for a warehouse full of computer keyboards. But I'm speaking from the far end of the drawing experience; I've done it for fifty years. I know the sensual glide of the lead releasing the feelings of the heart. This euphoric sensation is not given to the faint-hearted nor the lazy.

Where do ideas come from? This subject is worthy of endless debate. Where indeed? I read somewhere that both Beethoven and Mozart spoke of hearing something called "The Blue Note" which, when it played occasionally in their heads, was like a passage to creativity. From your own experience, you must know the feeling. Sometimes you are so tuned in that ideas birth in your head faster than you can jot them down. That's when the Blue Note is playing. But more often than not, the creative well runs dry and nothing happens. When the Blue Note ceases to play, there's nothing you can do but wait. It's a horrible feeling.





# CREATIVITY

The challenge of creating "Art" is a human thing. All expressions of it are unique and individual and spring from one's own impressions of the physical or natural world. Art is about feelings.

I once knew a celebrated fine-art painter who taught at Santa Monica High School. She was as provocative in her dress, jewelry, and language as she was in any of her unusual masterpieces that hung in the halls. Miss Brown-Green's paintings were as unique as she was. It was anybody's guess whether her work had been hung right-side up. The scrambling of patterns, shapes, and colors in her art boggled the mind. It was beyond logic. It shouted at you irreverently, and I didn't understand a whit of it, much less the lady herself. The first assignment she gave to the class was to paint a still life. I spent two weeks in the basement of the art building staring at a Ming vase while trying to capture the essence of it. Finally, when I handed in my work, Miss Brown-Green flipped right out. "No, sweetie! If I had wanted realism, I would have given you a camera. This is awful! Have you no feelings of your own?" she barked. I was crushed. I had missed the point entirely. But then she drove the lesson home more bluntly. "Paint not what you see but what you feel about what you see. Go back to the basement and try again!"

Incidentally, Friedrich Handel wrote *The Messiah*, the entire work, in just ten days. That's ten consecutive days! He shut himself in a room and, in a creative frenzy, composed his masterpiece. He paused only briefly to eat, use the bathroom, and command his family that he was not to be disturbed. I can only guess that the Blue Note was playing loud and clear. I have my own term for this Blue Note thing. I call it "My Laughin' Place."

Friedrich Handel was in a state of despair. Struggling to earn a living in London, there were days when he could not afford to buy meals. One cold night in 1741, Handel wandered the lonely streets, feeling depressed and defeated. It was almost dawn when he returned to his shabby room. There on his table was a thick envelope with a note from Charles Jennens, the man who wrote his librettos. Examining the pages within, he found them covered with Scripture texts. He didn't give them much notice.

Wearily, he tossed the pages aside and crawled into bed, but he could not sleep. The words he had read soon returned to him: *Comfort ye, comfort ye, my people, saith your God... The people that walked in darkness have seen a great light... For unto us a Child is born... Glory to God in the highest... Hallelujah! Hallelujah!*

Too stirred to sleep, he got up and went to his piano. The music flowed from his heart. It was



Friedrich Handel



rich, majestic, and triumphant. He began to write. He wrote feverishly. He wrote night and day for three weeks. He forgot to eat and sleep. He refused to see anyone. At last, on the day the work was finished, one friend managed to gain entrance. The composer was at his piano, sheets

of music strewn around him and tears streaming down his face. "I do believe I have seen all of Heaven before me and the great God Himself," he exclaimed.



In *A Chorus Line*, the character Diana describes trudging her way through acting classes. At one poignant moment she remembers being called to the front of the class to play the part of an ice-cream cone. The actress then sings:

So I dug right down  
To the bottom of my soul  
To see how an ice cream felt.  
Yes, I dug right down  
To the bottom of my soul,  
and I tried to melt.

Felt? How does an ice cream feel? What a question! I think actors are so much closer to the essence of their craft than us pencil-pushers and key-punchers. God love 'em. They go right for the feelings. Isn't that what Art is about? So, is the graphic artist mired in the constraints of technology? When I'm asked to draw an ice-cream cone, do I replicate on screen/paper an ice-cream cone only? Is that it? Are we graphic-arts mechanics? Is there no search for the soul of the ice-cream cone, the spirit of it, the essence of the thing? What I am suggesting to you is simply this: draw from the heart and draw from your feelings. Spend time getting in touch with your emotions. Take time to find the creation or drawing in your head. Feel the passion for it. Nurture it as you would an infant. Know its soul. Know yourself and what you feel about your creation. As every great book reveals the soul of its author, so should every great piece of art reveal the artist.



# CREATIVITY

## APPROACHING STORYBOARD

The process of storyboarding is a complex one. It is the Genesis Moment, the moment of translating the script into visual images. In any translation, something gets lost. The difficulty lies in the fact that the script-writer's efforts, all the sweat and tears spent in crafting a story with all its stunning colors and minutiae, are now going to change from literary form to picture form. Can something be lost in the process? Absolutely! Can something be gained? Hopefully!

There's an old axiom that comes to mind here: "Form and content go hand in hand." If you change the form of a piece, you automatically change the content. Look at the example below. Shakespeare wrote several sonnets that have a different rhetoric. In a sonnet, a problem is posed in the first four-line stanza, further developed in another four-line stanza, then reconsidered or answered tentatively in the next four-line stanza. Conclusively, the problem is answered definitively in a final two-line couplet. The rhyme scheme is as follows:

### Sonnet 130

- |                |    |   |
|----------------|----|---|
| Stanza 1: abab | 1. | My mistress' eyes are nothing like the sun;<br>Coral is far more red than her lips' red;<br>If snow be white, why then her breasts are dun;<br>If hairs be wires, black wires grow on her head. |
| Stanza 2: cdcd | 2. | I have seen roses, damask'd red and white,<br>But no such roses see I in her cheeks;<br>And in some perfumes is there more delight<br>Than in the breath that from my mistress reeks.           |
| Stanza 3: efef | 3. | I love to hear her speak, yet well I know<br>That music hath a far more pleasing sound;<br>I grant I never saw a goddess go;<br>My mistress, when she walks, treads on the ground:              |
| Stanza 4: gg   | 4. | And yet, by heaven, I think my love as rare<br>As any she belied with false compare.  |

The integrity and feeling of the above sonnet lies in both the message and the form in which it is delivered. Let's say, just for fun, I try to rewrite the sonnet's message in a paragraph of unrhymed prose. There are many writers more qualified for this task than myself, so be patient while I give it a go.

### Prose Version

*My mistress' eyes can't compare with the light of the sun, and her lips, well, they pale beside red sea coral. And her breasts are not white as snow. Not even close. They're sort of a gray-brown. Ah, then there's her hair. It's as thick as wires, and black, growing all over her head. "Maybe there's the faint blush of rose on her cheeks?"*



*you ask. No, not really. Furthermore, I prefer some perfumes over my mistress' breath. But, I love to hear her speak. Now, I wish I could say that the sound of her voice were like music, but who am I kidding? I know it's not. In fact, she's not at all one of those mythical Goddesses. She's just an ordinary, down-to-earth girl. But I wouldn't trade her for any of those false beauties; she's really special. We've got a good thing going, she and I.*

The tone of the original sonnet compared to that of the prose version is completely different. Shakespeare's sonnet is romantic, rich in imagery and conceits, while the prose version feels common. But what must you be thinking? What the heck has this got to do with storyboard? Stay calm, I'm making a point. If you fall out of the tree now, your boarding skills will fall short of the mark. Storyboarding is translating! To do it successfully, you must understand the spirit of the piece or script and all it entails. You must understand the characters, the conflict, the deceit, the villainy, the triumph, and the moral.

## **The Seven Categories to Consider**

1. **Character and its...focus**
2. **Setting and its...focus**
3. **Layout and its...focus**
4. **Action and its...focus**
5. **Pace and its...focus**
6. **Lighting and its...focus**
7. **Message and its...focus**

### **Focus**

Notice, that I mentioned focus seven times above. If I had mentioned it seventy-times-seven, it still wouldn't be enough. Focus is a concept of extreme importance to the effectiveness of your art. It means pointing the viewer's nose to the exact spot on the page or screen where you would like them to look. Indeed, that focus spot may be obvious to you, but if it isn't to your viewers, then, you're out! So, as we direct our attention to any of the seven areas mentioned above, a little voice inside your head should keep repeating, "What's the focus?"

### **Script**

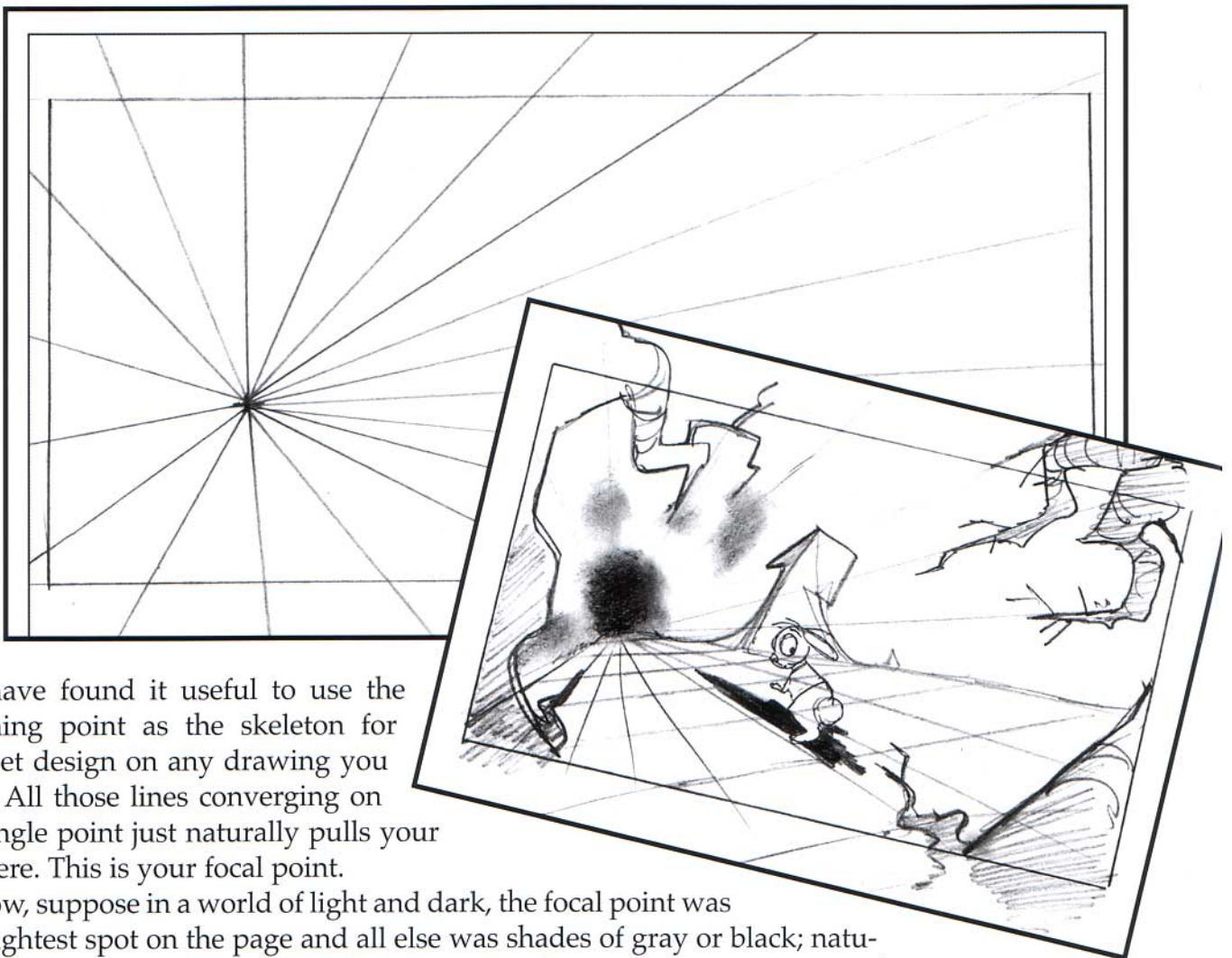
The script is the wellspring from which all ideas flow. The script's form is literary; however, the words therein describe pictures and actions. As the story unfolds to reveal the events of a hero's life, there is significance, because heroes are archetypal. The hero can be compelling, irresistible, or just boring.

Before you even think about translating the script into a storyboard, my firm advice to you is to read it, re-read the script, analyze it, and know it as intimately as the author does. Every script worth its salt should have a focus, a point, some main idea, or a moral.



# CREATIVITY

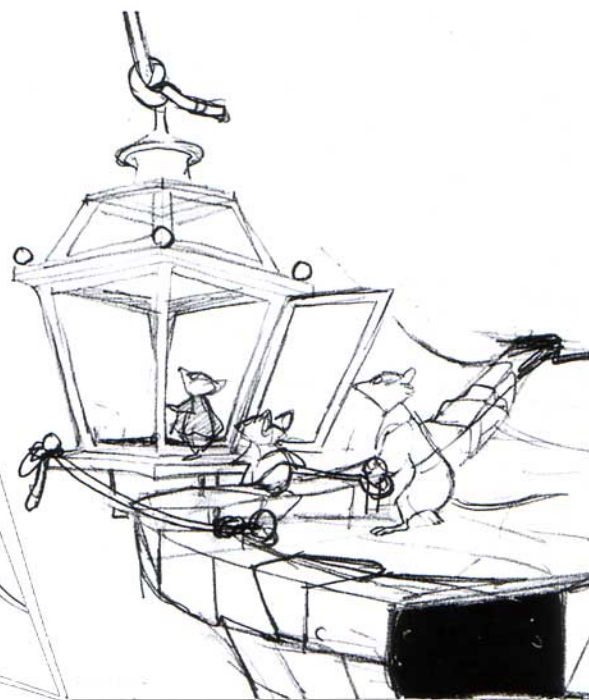
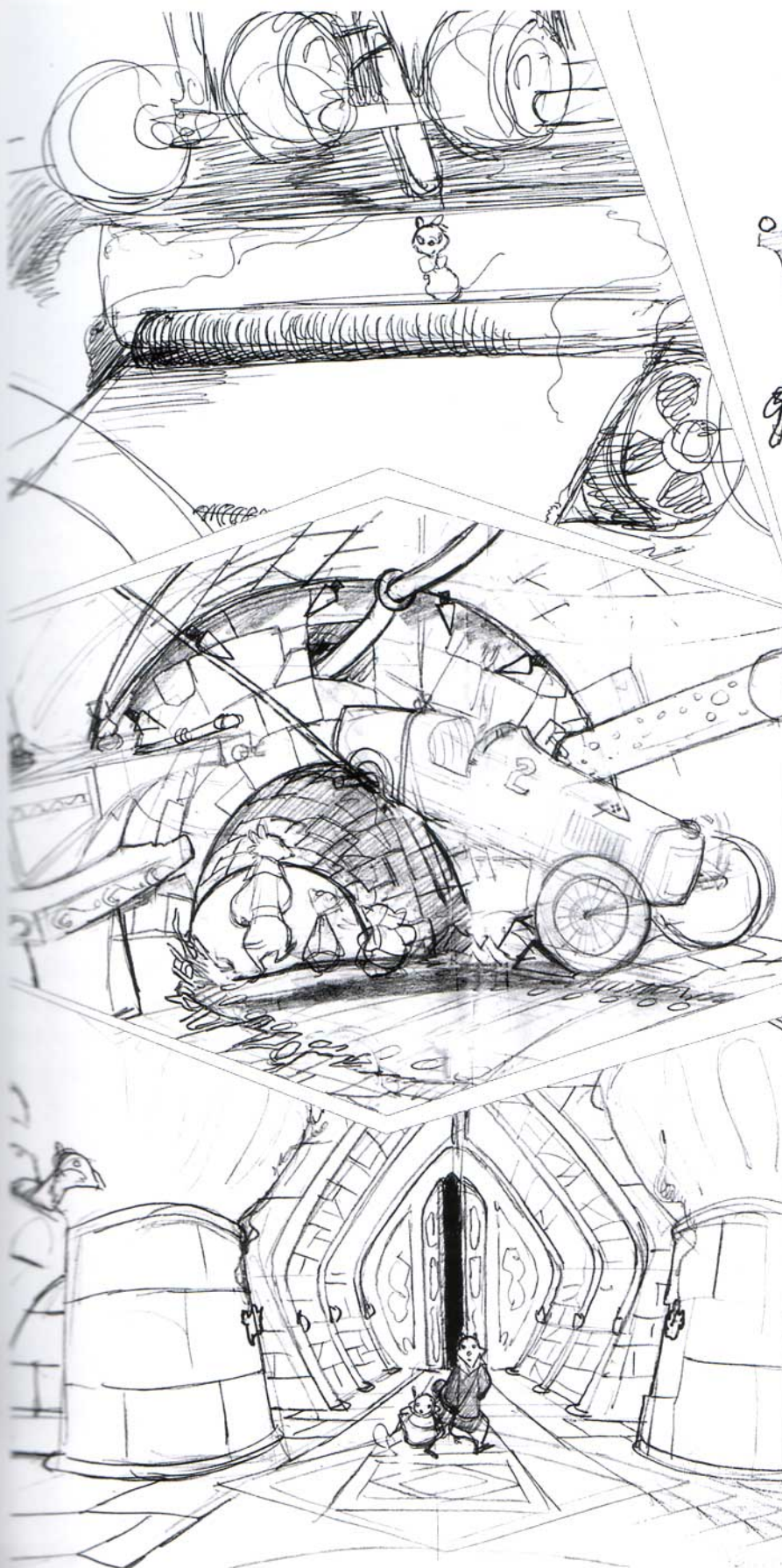
*Mrs. Frisby and the Rats of NIMH* was a Newberry Award-winning book that I read many times. I was hoping to figure out exactly what Robert C. O'Brien was trying to say in the 233 pages. The acronym in the title was also confusing. *N.I.M.H.* What was that? Oh, of course: National Institute of Mental Health! Some lab rats receive injections and their brain powers increase. Suddenly, they can read! The sign on the rat's cage door is now understood. *To open door, lift latch.* They lift the latch and escape. Wow, that's exciting, but hang on there! I still couldn't see a story in all this, not until the moment I discovered the fragile, ordinary field-mouse, Mrs. Frisby, whose tiny son, Timothy, was in jeopardy of dying at the cutting edge of the farmer Fitzgibbon's plow. Then the all-consuming question almost wrote itself: Is there anything the widow Frisby will not do or go through to save the life of her son? For a long time, I actually thought that this was the meat of the story, but then my understanding deepened. Throughout most of the book, Mrs. Frisby calls on every creature in the woods, asking for help. Her search leads her to Mr. Ages, the Great Owl, then to the rats, Justin, Jenner, and finally Nicodemus. That's when the real question bobbed to the surface. Is Mrs. Frisby merely a damsel in distress who is waiting to be rescued, or is it possible that she possesses great inner strengths and must figure these out and then tap into them? Focus! Focus! Focus! Focus!



I have found it useful to use the vanishing point as the skeleton for your set design on any drawing you make. All those lines converging on one single point just naturally pulls your eye there. This is your focal point.

Now, suppose in a world of light and dark, the focal point was the brightest spot on the page and all else was shades of gray or black; naturally, your eye would go for the light. Remember those great old black-and-white movies of the forties called Film Noir? *The Third Man*, *Night of the Hunter*, *Double Indemnity*, *Touch of Evil*. Check them out!





The sketches on these pages are really just doodles drawn on yellow legal pads! I like to remind myself that I'm not making the Lord's Prayer before I get too tense and tie myself into miserable little knots of worry and self-doubt.

First, I try to relax and get comfortable. Then with pencil in hand, I simply mess around with what has already been cooking in my head. It's a form of note-taking. No one is watching, so there can be no embarrassment. If you do make mistakes, well, who cares? It's just for fun anyway.

Truly, I'm intimidated by a clean sheet of paper. For that reason, I free myself of this ridiculous phobia by adopting an "it doesn't matter" attitude and using expendable or trashy stock bond or even a legal pad to work with. The most important thing to remember is to be free: no rules, no criticisms, no budget constraints, nothing! Free yourself and let the ideas flow, or gush, or drip, or whatever.



# CREATIVITY





Let's face it, we humans love to listen to stories. Perhaps it's our curious nature that halts us in our tracks to hear a joke or a recalled personal experience. However, have you ever noticed that when some of your friends recount their bag of amazing tales, the room clears? Truly, the knack of great storytelling is a gift the gods give to only a few. Those blessed few seem to possess great insight into the needs of the masses, that is, the Everyman. Although familiar stories, such as legends or parables, can hold one's attention when they are told well, an audience generally expects unfamiliar material; something to surprise, delight, and entertain or perhaps even tell them something they didn't know! Yes, even educate!

## The Storyboard

A classically animated film is similar to a live-action film in its following of the dramatic form. For both styles, everything begins with a good script or story. That's a given! The process of visualizing that script in a series of drawings (much like a comic book) that convey drama, lighting, staging, emotion, humor, clarity, and continuity is called *storyboarding*.

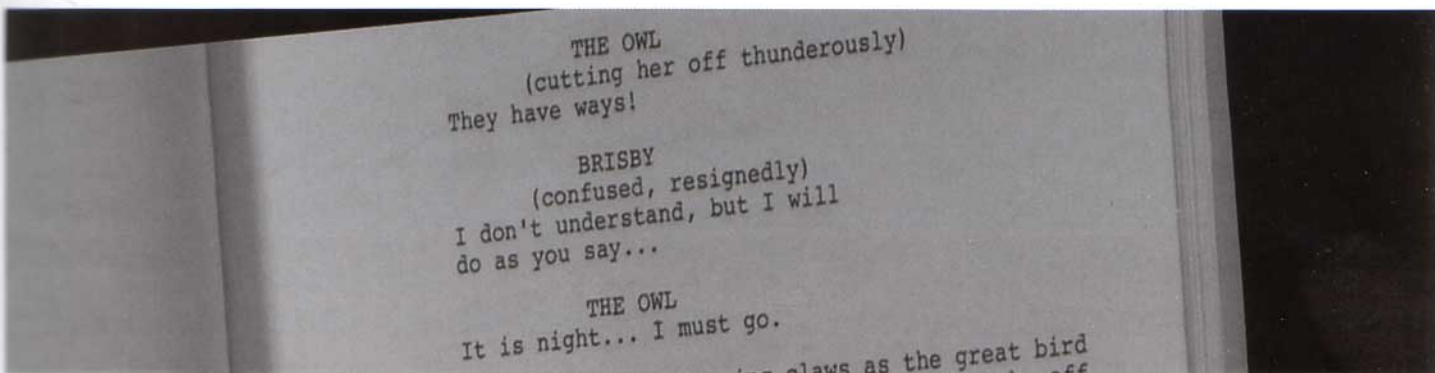
For me, the storyboard process is the most crucial to the success of an animated film and is, for that reason, the most challenging. If properly executed, your storyboard drawings should elicit viewer reaction; therefore, you should welcome scrutiny. Tell your ideas to friends as you point to the pictures you have drawn and describe the action. Pay close attention to their reactions. Ask for suggestions. Seek outside input, and accept it openly. Don't be hurt or offended if no one laughs at one of your gags. Use that reaction to guide you. Perhaps the drawing you made to describe the action isn't working properly. Try another!

There is a great fallacy in storyboard thinking that suggests that story ideas and gags will be better after they are animated. This is absolutely NOT TRUE! Animation will only dress up your material. A good story can be poorly animated and it will still play for the audience. A bad story can be superbly animated and it will never play. In fact, it could clear the room!

## Close Your Eyes to See

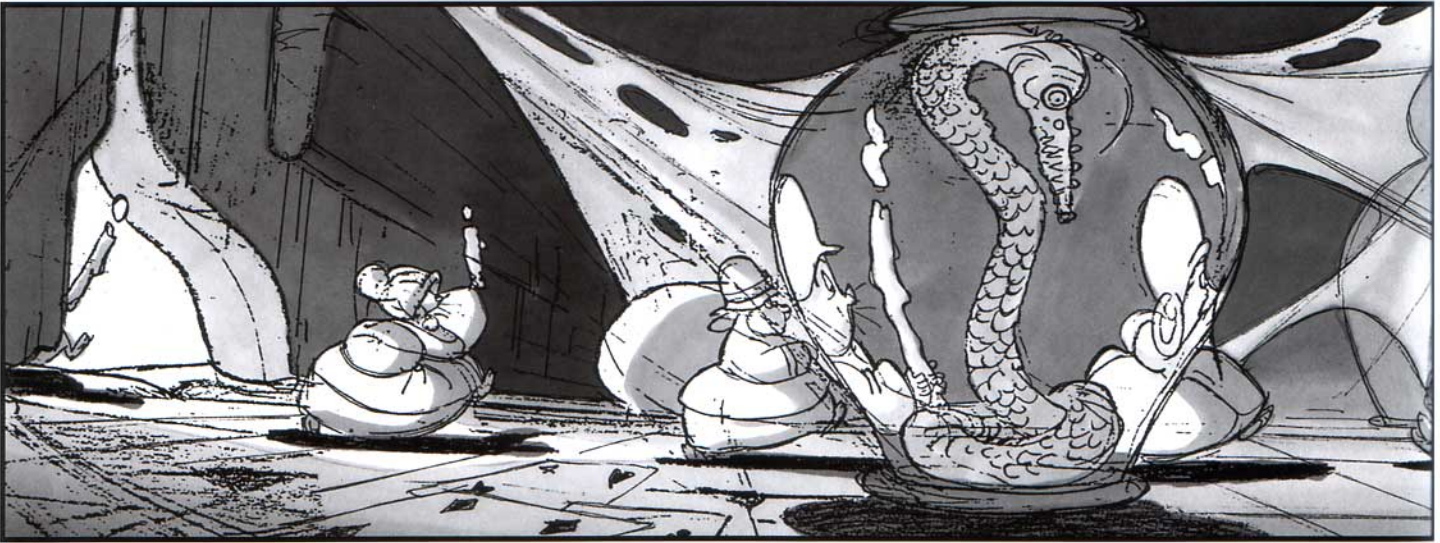
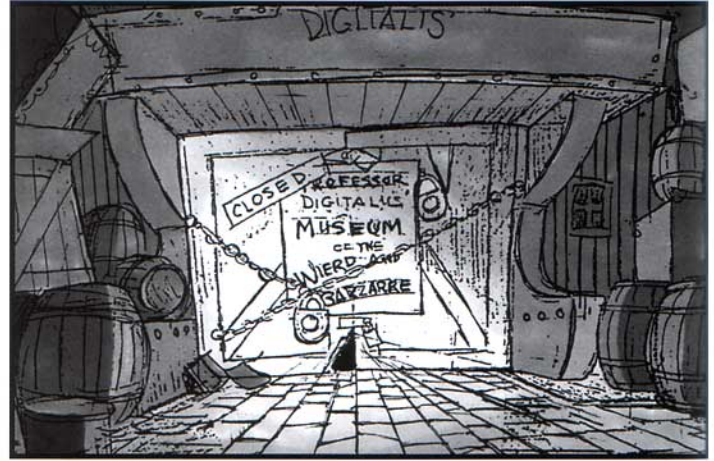
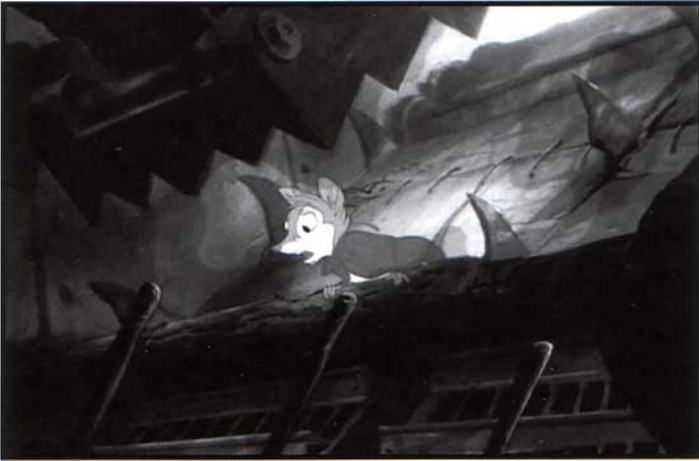
Read the script and come to believe in it. If you can't believe in your script, you'd better choose another. Once you have your script, sit quietly with your eyes closed and envision the picture in your mind, finished if possible. Don't edit yourself at this point. Select a section of the script that you like and try to view it in your mind's eye. Envision the characters – their actions, costumes, and facial expressions. Hear the voices, the music, and the sound effects. My brain is not always willing to do this exercise on command, so I don't force it; often, it wakes me in the early hours of the morning when it's good and ready.

Keep a sketchpad handy to jot down the ideas and special notes when this inspiration session is over. Don't edit your ideas, but collect them. I have often recounted these small visions to John or Gary to see if they make sense. Good ideas stand up under scrutiny, whereas poor ideas do not. With that in mind, let your friends' reactions help you filter out the bad ideas.





# PRE-PRODUCTION



(Upper left) *NIMH*: Inside an abandoned threshing machine, Mrs. Brisby enters the mysterious world of Mr. Ages.

(Upper right & above) *An American Tail*: The mice congregate in an abandoned museum of the weird and bizarre props of Professor Digitalis.

## THE SETTING

**T**he setting, where the action takes place, can heighten the emotion of a scene. It can make it unusual, interesting, and fresh. For example, there is a sequence in *An American Tail* where all the mice in New York gather at a warehouse on the pier. This is a very important repartee. I wanted the audience to feel the industriousness and cleverness of the mouse community, so an ordinary warehouse would not do. Rather, I chose a museum of the weird and bizarre that belonged to the deceased charlatan, Professor Digitalis. I filled it with dusty mummies, torture devices, hydras, and a host of unusual items with which the mice could use to build. What kind of mood do you think these interiors create for the viewer?

Before storyboarding the continuity of this sequence, the set needed to be designed. Location, exterior view, interior layout, props, and furniture all needed to be brought into focus. Using books and old photographs related to the subject help stoke the creative fires.

*The Secret of NIMH* depicts Mr. Ages as a cranky, too-busy-to-help metaphysician, puttering away at his science deep in the belly of an old threshing machine. These surroundings described his personality far better than a mere hole in a log could ever do. Besides, who in the audience had ever seen the inside of a threshing machine?



# STORYBOARD TOOLS

**Pencils:** A varied selection of pencils is important. I find that the Berol Turquoise HB or 2B pencils are good for sketching and a 6B pencil is ideal for shading. Some of our artists prefer Mitsubishi UNI pencils in the same 6B, 2B, B, and HB gradings. Although pencils are the most expedient, you might want to expand to charcoal, ink, pastel, colored markers, or watercolors for a really good look.

**Paper:** I prefer to storyboard on 8 1/2 x 11 inch typing or copier paper. I use an ACME 8-Field size at full academy aperture (shown below), centered on the paper to circumscribe the picture size (frame). This template can be made easily by cutting from sturdy cardboard or chipboard, one-

tenth inch thick, a rectangle measuring 8 x 5 inches. Everything you see within the rectangle will be on the screen.


**Labeling:** Someone will have to interpret your boards, so you will need a labeling system. I use Avery round stick-on labels, in the upper-right corner for the scene's footage length and in the lower-left corner for the sketch number. Use pushpins to pin the drawings up on a cork board in continuity. Looking at your sketches in continuity will help you determine whether more sketches are needed, if any are confusing, etc. Confine camera instructions to the top of the sketch. It doesn't matter what format you follow, but be consistent.

CAMERA INSTRUCTIONS

This rectangle represents an 8 - Field ACME size.


This is the 1 : 85 Ratio Cut In.

Center.




Sketch Number.

1 : 85 Ratio Cut In.



Center.

Footage Length  
of StorySketch



• Scene Number.  
• Background Number.  
• Underlay / Overlay Number.  
• Sequence Number.

SC
BG
UL / OL
SEQ

• (Description, If Any)

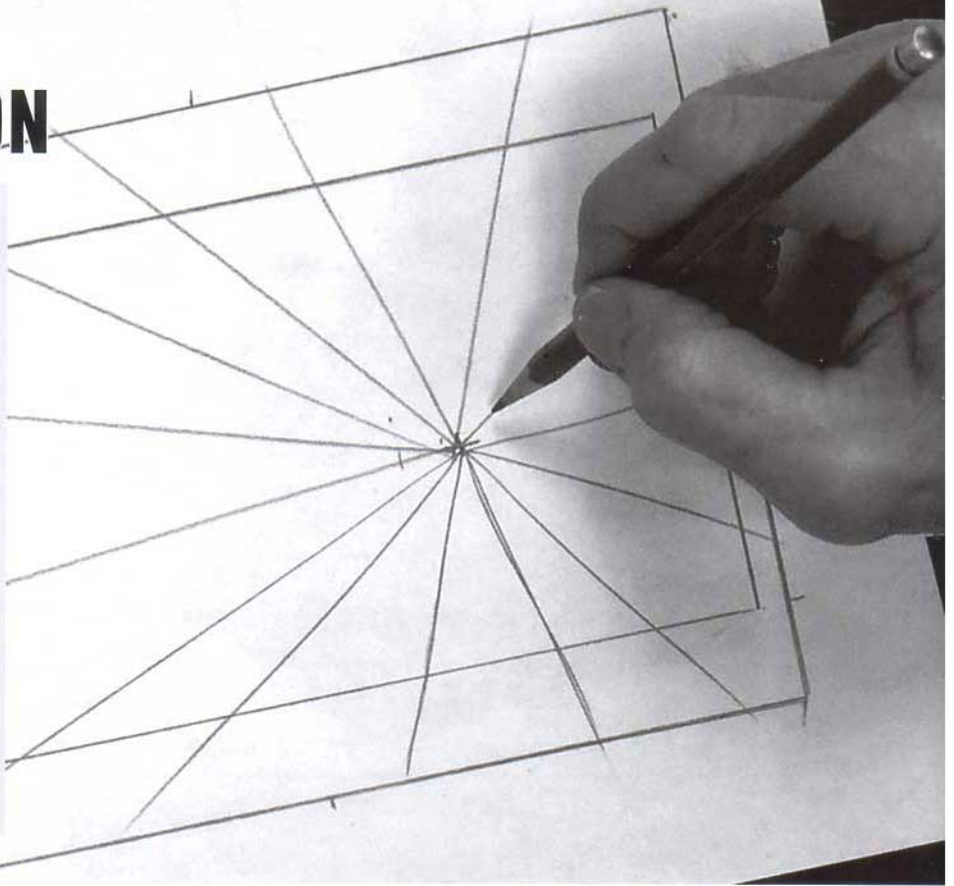
• **DIALOGUE :**    Example: **Brisby:** But I don't know any rats.

# PRE-PRODUCTION

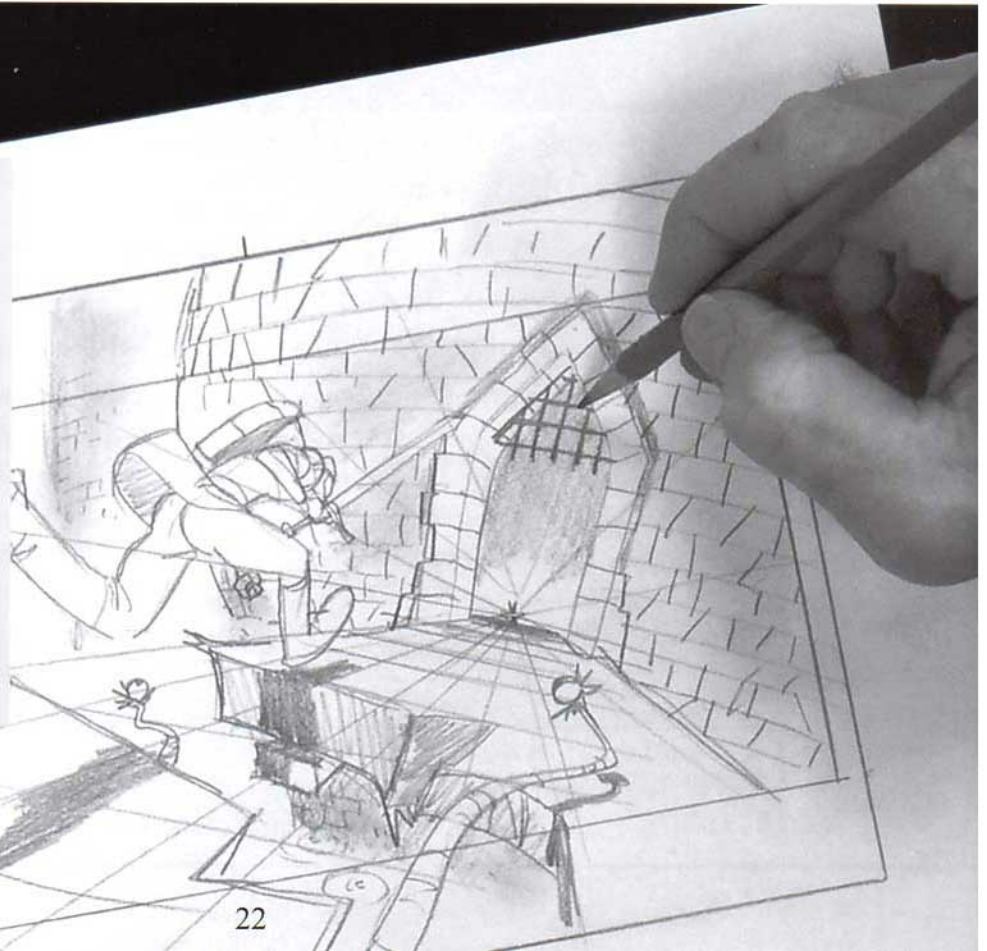
## LAYOUT & ACTION

The thrill of the hunt, the challenge of visualization with rough sketches and notes, the rhythm, the tone, and the action of the finished movie you see projected on the mental screen inside your head are all part of the daunting task of storyboarding.

Often, the visions and sounds emanating from your fancy are ephemeral. They are like wisps of smoke, here, then gone. Consequently, I like to work quickly, making small dirt-rough drawings.



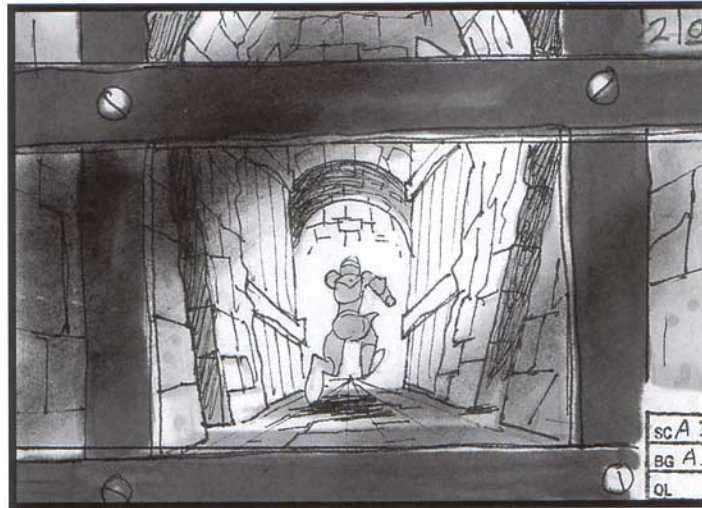
I never concentrate on doing good sketches on the first pass, but place my focus instead on the emotional power that emerges from my imagination. With each new sketch, I ask myself the same two questions: What am I trying to say, and what do I want the audience to feel? If I can't answer these two questions, I'm not ready to draw, so I put the pencil down.







(Dirk escapes the slugs and enters the castle)  
**NARR (OFF-SCREEN):** YOU CONTROL THE ACTION...



(Portcullis slams shut in foreground)  
**NARR:** ...OF A DARING ADVENTURER...



(Dirk slashes a tentacle)  
**NARR:** ...FINDING HIS WAY...



(Dirk swings across fire pit on burning ropes)  
**NARR:** ...THROUGH THE CASTLE OF A DARK...



(Dirk swings at Giddy Goon)  
**NARR:** ...WIZARD THAT HAS ENCHANTED IT...



(SFX slash – just after the word “it”)  
**NARR:** ...WITH TREACHEROUS...



# PRE-PRODUCTION

## GETTING STARTED

Again, first read the script, then think about the characters. Next, re-read the script and again think about the characters. Later, talk about the characters' personalities with someone whose instincts you trust. You cannot convincingly draw a character you don't understand anymore than you can talk on a subject you know nothing about. You will get caught in a lie. The rule of thumb is to know your cast members and what makes each of them tick at their core. Call on your own experience with people to gain understanding of the characters on the scripted page. Get inside the playwright's head. Why did he write the story? What is he trying to say?

Robert C. O'Brien wrote the story of *The Rats of NIMH* because he was feeling what emotion? What is the point of his story? I'm asking myself these questions because they become the foundation upon which to build a clear and entertaining board. Boarding, you see, in the purest sense, is like directing. Before you can make those little story sketches, you have to take on some director-like decisions, for example, the editing of the picture, the camera angles, the lighting of each scene, the amount of information you want your audience to get with each scene, and the pace of the movie. Now, since these are too many pennies to spin all at once, I always simplify my approach. On the first pass, I concentrate on two things only, the cutting and the camera angles. With the second pass, I pay more attention to the information being fed to the audience as well as the lighting. Finally, on the third pass, I will either focus on the timing or the pace of the action.

### Cutting & Angles

Surrounding the Great Owl and Nicodemus is an aura of mystery. They loom up bigger than life and intimidate the tiny field mouse, Mrs. Brisby. Although, in fact, Nicodemus and the Great Owl are the same character, each displays a unique outward appearance.

To help the audience feel what Brisby must be feeling, the camera is placed low. The up-shot gives The Great Owl and Nicodemus a feeling of immensity, influence, and power, while Brisby, who is already humble and meek, seems to grovel.



**OWL:** MOVE YOUR HOUSE TO THE LEE OF THE STONE.



**NICODEMUS:** BY ONE WITH A COURAGEOUS HEART...



## Information & Light

Once you feel confident about the editing (see *The Beats*, page 26), and your camera angles (*Rough Sketches*), you can dive into deeper waters, which involves the lighting of the sketches. You may use any medium that suits your fancy. I prefer markers and pastels. Seldom will I redraw a rough sketch except to improve a camera angle. Those first-toss drawings have soul in them, and redrawing them cleaner will often lose something. The details will come later. For now, these sketches are an indication of where I would like to go. Besides, none of these storyboard drawings will be in the final movie anyway.

The three sketches on this page are acting scenes. Nicodemus is gifting Mrs. Brisby an amulet that once belonged to her husband, Jonathan. She is mesmerized by the beauty of the gift. Especially breathtaking is the highly polished surface of the ruby. In sketch 89, we see the stone and Brisby's expression at the same time. The focus of the scene has to be Brisby's eyes. Even the voice of Nicodemus should be soft and unobtrusive. I would put a spotlight on Brisby's eyes. Now, in sketches 90 and 91, Brisby and the amulet are separate. The focus is on her at first, and then it should shift to the amulet. The solution is simple. The lighting should spot them both, then at the moment of the focus, it should shift. The effects animator could create a sparkle for about six frames on the amulet, drawing the audience's attention to it and, thus, the inscription.



**NICODEMUS:** ...RED, IT BECOMES A BLINDING RADIANCE...



**BRISBY:** ...YOU CAN UNLOCK ANY DOOR...



**BRISBY (OFF-SCREEN):** ...IF YOU ONLY HAVE THE KEY...



# PRODUCTION

## THE DRAWINGS

These little devils will birth when they are good and ready and not before. I always put off the pencil and paper dance until I've had time to sit with all the ideas. Find a quiet place. Can you see the movie you want in your head, even if only pieces of it are already finished? Don't try to edit yourself at this stage. Keep observing the mental phantasmagoria. The child in you will scream with delight when you get close to a fabulous idea. When you think you have snagged a big one, draw it! Stay rough. Be prepared for disappointment. Remember, something is always lost in the translation. Usually, serendipity kicks in and you'll find some surprises as you sketch.

Remember that a movie is a long piece of film, about a mile and a quarter in length and about 120,000 frames for an eighty-minute movie. This series of still pictures will be lined up in the order the images are to be presented to the viewer. In the boarding process, you are deciding that order. The power a film has to move an audience is determined by the way the story information is fed to them, and also the rate it is fed. Give the audience too much information too soon and your movie becomes predictable and maybe even boring. Hold back! You want to make your audience curious. Keep them guessing until the last frame. Indeed, a good example of this is the film *The Sixth Sense*. Who knew the ending? I sure didn't!

### Scrutiny

This requires humility. You want to rid your board of any weak ideas and you may be too subjective to recognize them for yourself. So while you're still in rough mode, pitch your boards to fresh eyes. Actually, this can be a lot of fun. If you are with the right people, many more ideas will come bubbling forth throughout. Nothing in your boards should be chiseled in stone. Don't be a brat and get defensive. The scrutiny process is not an attack on you personally. In contrast, it's a way of reaching for the stars instead of settling for the moon. A fabulous concept will sell itself. If you get stubborn, a bad idea could go all the way through production. This hurts not only the movie but also your reputation. Strive for the ability to listen calmly to another point of view. You may develop an allergy to the scrutinizing part of the process and want to skip it altogether. All I can say is, don't! Be inspired, and flow with an energy that is bigger than self.

### The Beats

This is a term that is used frequently in script writing and storyboarding. It has to do with timing. Oddly enough, musicians employ the same term. Music is metered out in a series of notes and delivered to the human ear in a beat pattern. Storytelling is similar: a series of ideas or messages that is delivered to the senses in a beat pattern, either fast or slow. For example, in *The Secret of NIMH*, the Great Owl slowly turns and stares down at Mrs. Brisby. He is silent for a beat, then speaks: "Why are you here?" The term *beat* is used to show the passing of time as the owl sizes up the situation. When the beat of a movie picks up speed, we are usually in a moment of extreme tension or high adrenaline. Even your heart pumps to a beat. Occasionally, it may skip one if you are suddenly startled.

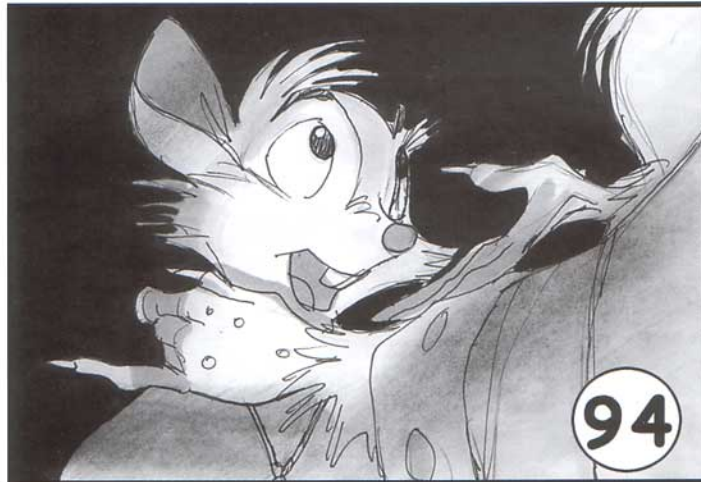
### Shading the Story Sketches

There are three good reasons to add shading to story sketches. First, shading will make the sketches better looking from an animation standpoint, and many people will need to know your vision for the movie before it gets started in production. Second, the lighting will cue the effects animators. They can then begin to calculate their workload. Things like contact shadows, shadow mattes, highlights, sparkles, and focus for the scene will all have to be scheduled and budgeted. Finally, the color-key artist can now get in on the act once he/she knows how the scene is to be lit. These miniature Monets can really nail the scene's emotional impact.





BRISBY: ...OH THANK YOU.....



BRISBY: I WILL TREASURE IT ALWAYS.



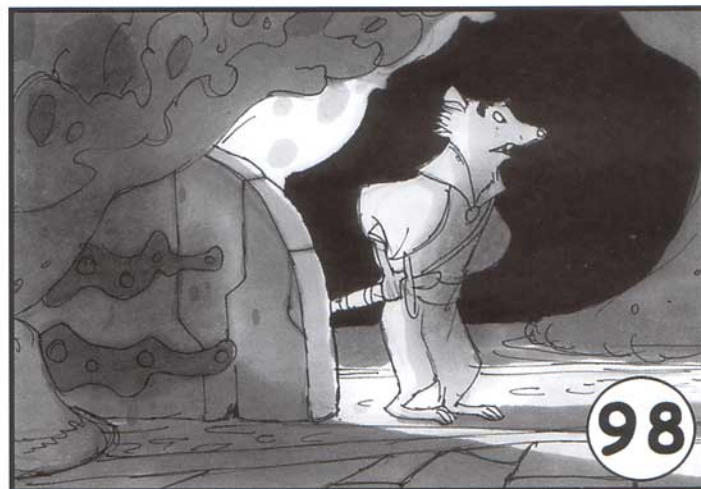
NICODEMUS: JONATHAN COULDN'T TELL YOU ABOUT NIMH BECAUSE THE INJECTIONS SLOWED THE AGING PROCESS.



NICODEMUS: ...YOU SEE, YOU WOULD HAVE GROWN OLD WHILE HE REMAINED YOUNG.



SFX (DOOR OPENS OFF-SCREEN)  
JUSTIN (OFF-SCREEN): NICODEMUS...



JUSTIN: THE BOATS ARE READY AND WAITING. WE CAN LEAVE ANYTIME.  
NICODEMUS (OFF-SCREEN): GOOD...



# PRODUCTION

## THE STORY MEETING



**JUSTIN:** SOMETIMES WE HAVE A LONG PROJECT THAT TAKES US INTO THE OPEN.  
**MR. AGES** MAKES UP A SLEEPING POWDER TO GIVE TO DRAGON.



**BRISBY:** HOW DO YOU GET HIM TO TAKE IT?

**JUSTIN:** SOMEONE MUST GO INTO THE FARMHOUSE KITCHEN AND PUT IT IN HIS DISH.

Perhaps just for fun, we can analyze the canal sequence from *NIMH*. Back in 1980, there were only four main participants in the story meetings: John Pomeroy, Gary Goldman, Will Finn, and myself. Now, if memory serves me correctly, we really sweated the details on this section. The dialogues were often heated, but mainly amiable. The substance of a typical story meeting is illustrated beginning on the following page.



**NICODEMUS:** SOMEONE THE SIZE OF A MOUSE.

**JUSTIN:** THE ONLY WAY INTO THE KITCHEN IS THROUGH A TINY HOLE IN THE FLOOR.



**DON:** Okay, here's the latest version. I've added some new sketches, but in my mind, I'm still struggling with the question of "What is the conflict of this scene?"

**GARY:** Isn't it simply the fact that they are journeying in a dangerous environment? Geez, the roof's about to cave in on them.

**WILL:** That just increases the tension the same as Murray, the snake over there.

**JOHN:** Murray? The snake is called Murray?

**WILL:** You got a better name?

**DON:** Ahem! Can we go on now? With the dialogues going on with the three characters in sketches 2, 3, & 4, we know the rats are pretty darn resourceful.

**JOHN:** Hopefully, the audience is saying to themselves, "So Ages has a broken leg. Who drugs the cat this time?"

**WILL:** I know where you're going with that. You think that they'll think that she thinks that she should volunteer for the job – forget it. She's a coward.

**GARY:** She jumped on the tractor.

**DON:** What if we were to play up her fear of the cat? Maybe she has cat phobia or something. What if the audience suspected she wanted to volunteer but can't bring herself to say the words?

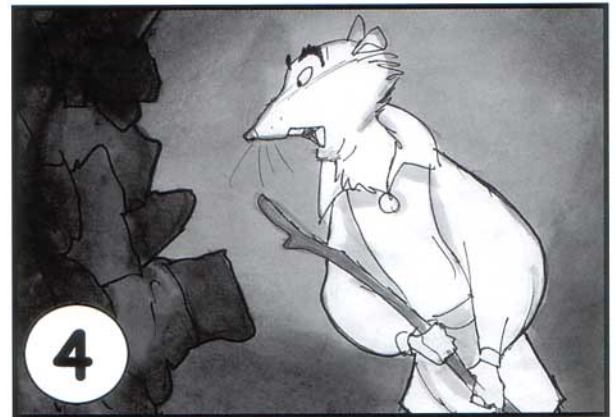
**WILL:** That sounds terrific! But let's beat her up psychologically first.

**JOHN:** Well in sketch 6, the rotting underpinning comes crashing down on her head.

**WILL:** So what! The boat tips a little starboard. I say we should knock her out of the boat and put her through something.

**DON:** Hang on! The conflict is what's going on in her head. I think we should stay focused on her fear of the cat.

**WILL:** You mean by using very subtle expressions on her face?



**JUSTIN:** AGES TRIED IT YESTERDAY.  
THAT'S HOW HE...

**BRISBY (OFF-SCREEN):** BROKE...



**JUSTIN:** ...HIS LEG!

**MRS. BRISBY:** HIS...LEG. YES.

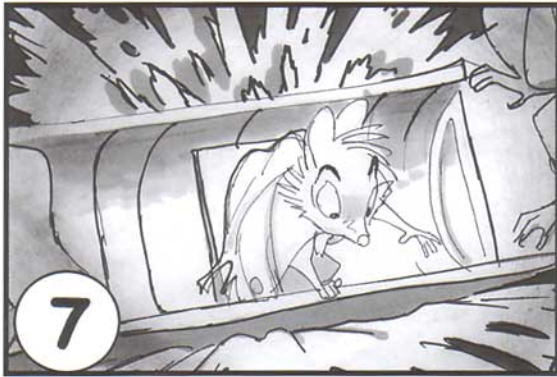
**JUSTIN:** ...RIGHT.



**SFX (LOW RUMBLE AND SPLIT OF ROCKS)**



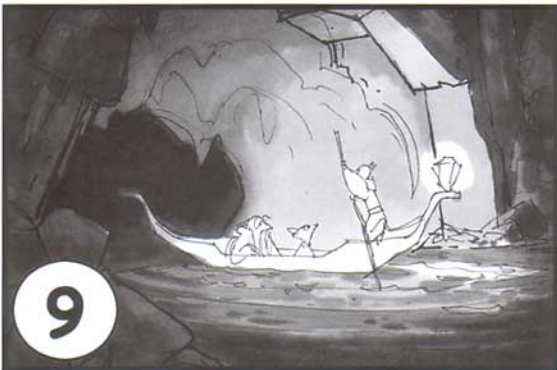
# PRODUCTION



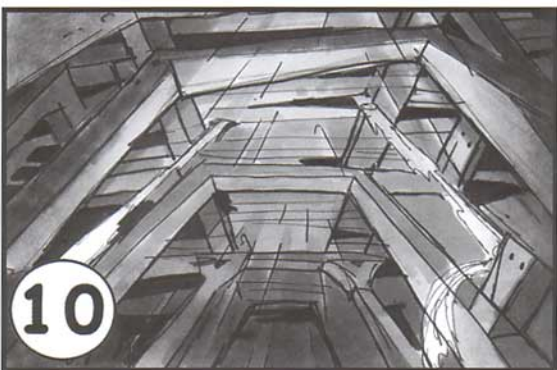
BRISBY: (GASP)



JUSTIN: THAT WAS CLOSE.



BRISBY: WHAT'S UP THERE?



JUSTIN: THE MILL.

**WILL:** The animators are a bit green. They may not have the chops for it.

**DON:** There's got to be a way to show her stressed out through action. Maybe with quick, jerky, and uneasy movements.

**GARY:** They narrowly missed capsizing. She could grip the boat, white-knuckled.

**DON:** ...or be short of breath.

**JOHN:** Boy, I sure don't want to confuse the audience here. Her nervousness is not the environment under the mill. It's the fact that she is running out of time.

**GARY:** The subplot of our story is the rats' dilemma about getting to Thorn Valley. The tunnel supports are collapsing. I think you need a couple of scenes showing how precarious the structure is.

**DON:** The problem I'm having is with Brisby herself. She's a passive character. Things happen to her, but she herself does nothing.

**JOHN:** She went to the Owl.

**DON:** Not true! She was taken to the Owl. Jeremy took her.

**GARY:** I don't agree. I see her gaining in courage. She does try to stop the tractor. She does have the guts to enter the Owl's tree, and she does go underground to find the rats. I like the arc of her character.

*Note: Finally, someone mentions "character arc." Dumb ol' me! I was starting to logic myself into fixing Brisby's character when it didn't need to be fixed in the first place. Incidentally, sketches 9 and 10 were added, as per Gary's suggestions, to increase the tension of the ticking clock on the rats. The next four sketches (scenes), 12 through 15, supply the audience with information or reasons why the rats have formulated a plan to journey to Thorn Valley.*



**JOHN:** By the way, I'm worried about the boat model. We can't just draw that out of our heads. The perspective will be impossible, and the feel of it shifting its weight in the water with the three characters on board will not look right.

**GARY:** We're going to shoot a model in a tank, right? That's the plan...last I checked.

**DON:** Yup! We can't animate any of the characters till we shoot the boat. Their movements will be affected by the gentle rock of the model.

**WILL:** You know, I'll bet Dorse Lanpher [effects animator] would kill to study the reflections of the boat model on the water when you film it.

**DON:** He's all over that.

**WILL:** Humor me here. Is it my imagination or is Justin showing romantic interest in the widow Brisby?

**GARY:** Will, you've definitely got a one-track mind.

**WILL:** Me? I'm just a freshman. You're the senior here, thank you very much!

**JOHN:** It's the camera angle. The upshot in 13 and 14 makes Justin look heroic and romantic.

**DON:** You guys realize it's the only sexual allure in the entire movie. I think it's Peter Strauss' voice that's causing the "alleged" attraction.

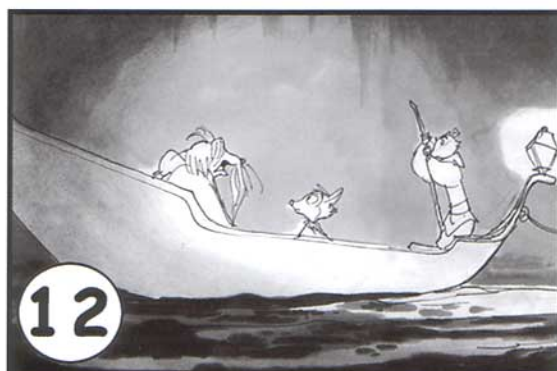
**JOHN:** Save it for the sequel!

**DON:** Sequel? Wouldn't that be intriguing? What a lucky break for whoever gets that assignment.

**GARY:** Of course that would be us; our studio.

**JOHN:** I think the power in sketch 15 is in what Nicodemus does not say.

**WILL:** Which is...?



**NICODEMUS:** WHY, TO LIVE WITHOUT STEALING OF COURSE.



**JUSTIN:** IT'S WRONG TO TAKE ELECTRICITY FROM THE FARMER.



**NICODEMUS (OFF-SCREEN):** YOU SEE MY CHILD, WE CAN NO LONGER...



**NICODEMUS:** ...LIVE AS RATS. WE KNOW TOO MUCH!



# PRODUCTION



**JUSTIN:** WE'RE ALMOST THERE.  
**BRISBY:** UM, YOUR MAJESTY.



**NICODEMUS (OFF-SCREEN):** YES.



**BRISBY:** A...A...A... (LAUGH)



**BRISBY:** I MUST PREPARE THE CHILDREN, FOR TONIGHT.

**JOHN:** Which is...the thread of the subtext that runs throughout the rest of the sequence. Nicodemus is gently prompting her to seize the day.

**GARY:** You mean, volunteer to drug the cat?

**JOHN:** Yeah. Don't you guys feel it?

**DON:** Absolutely! In the previous sequence, he gave her the Amulet and told her it was Jonathan's and had a power if she believed it did.

*Note: Sketches 17, 18, and 19 portray a moment of high anxiety. Is she going to volunteer or not? Of course, if she does volunteer at this point, the tension is dispelled and the sequence is over. But good luck to the animator. The acting must be so convincing that she wants to volunteer but just cannot bring herself to. Bad acting will spoil the sequence.*

**GARY:** Brisby must be impressed that Nicodemus and Justin are taking her to move her house to the lee of the stone that very night.

**JOHN:** But fear is hard to overcome. Since this is a big "acting" moment, let's focus entirely on Brisby's facial expressions.

**GARY:** I don't hear a music cue here at all. I'd prefer the emptiness of the cavernous tunnel and appropriate sound effects.

**WILL:** Keep it dark in the cave. The only light source up till now has been the lantern on the stern of the boat. But with the cool, dusk light coming from behind the veil of the falling water, the mood will seem pensive, low-key, and non-committal.

**DON:** I love it. By the end of this scene, I want the audience to believe she's gutless and won't volunteer.



**Note:** When you watch this moment in the film, the cave and all the characters are painted in dark colors; the brightest light is the waterfall. So, focusing the audience is achieved by minimizing all the characters' movements except for one. Naturally, the eye will go to the movement.

**DON:** The Great Owl tells Brisby that she must move her house to the lee of the stone to save her son, Timmy's life. He then sends her to the rats for help.

**WILL:** What's your point?

**DON:** Why is she so trusting?

**JOHN:** We don't want to explain it. The mystery will buy us a lot. Besides, later we'll see the block and tackle, the rigging, and the whole nine yards.

**GARY:** But let's make the audience wonder and not reveal it until later.

**DON:** You're right. I'm just saying, Brisby's confidence in Nicodemus...is it...is it believable?

**WILL:** Sure it is. This moment when Nicodemus just sits there in silence staring at her speaks volumes. I feel he is waiting for her to volunteer. He's manipulating her. It's most obvious in sketch 24.

**GARY:** If the emotional outcome of this sequence is to be satisfying, then her struggle to volunteer should be heightened.

**JOHN:** The beats are there. It's an acting challenge for the mouse.

**DON:** You mean, the animator.



**NICODEMUS:** WE SHALL WAIT HERE UNTIL DARK.



**BRISBY:** ABOUT DRAGON, MAYBE...

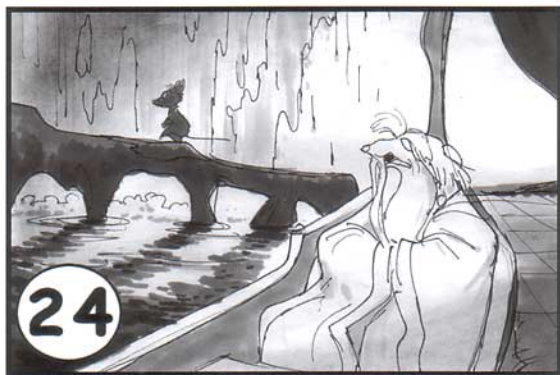


**BRISBY:** OH, OH NOTHING... GOOD-BYE.





# PRODUCTION



**WILL:** Okay! Sketch 24 is Nicodemus' scene. He's patiently waiting for the mouse to make up her mind. But sketch 25 is the moment! Shouldn't we go in closer?

**GARY:** Yes, and also get a three-quarter front view on her face. Let's see her make up her mind.

**JOHN:** Let's not. If we do, we lose the tension in the scene. I prefer not to know until she finally says it.

**DON:** I'm with you, John. Keep the audience guessing for as long as you can.

**WILL:** Like I said...or not!

**DON:** I see another potential problem! That noisy waterfall. Its movement is more intense than Brisby's own. Do you think it will upstage her?

**JOHN:** We're safe, but I would soften it. Shoot it as a second pass on the camera and also out of focus.

**GARY:** In the dub, we can play the sound of it low.

*Note: It's worth mentioning in this scene that the staging of Brisby is very dramatic and clear. Check out the silhouette value of the mouse as your focus is being pulled to her face. There is even a psychology to the upward slant of the tree trunk towards screen right. Brisby exits left and goes up towards the light while down and right leads back into darkness and self-doubt. It's a stretch, but my brain thinks that way.*

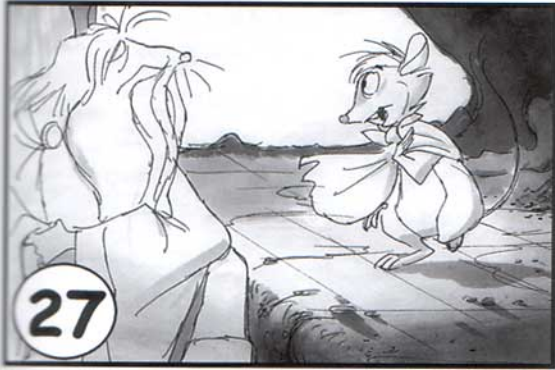
**JOHN:** You know, Don, the scenes in movies that I always go nuts over are the ones that have text and subtext. But I've not been able to see a "sub" on this one. It's no deeper than the mere dialogue lines you hear the characters speak. Everything has been nailed down; Brisby volunteers. There are no underlying currents, no ambiguity, and no nagging questions.

**DON:** Are you sure about that?



**BRISBY:** ...WAIT...





**BRISBY:** ...A...A...I...



**BRISBY:** VOLUNTEER...FOR DRAGON.



**JUSTIN:** ...YOU...OH NO, MRS. BRISBY.



**JUSTIN:** THIS IS NO JOB FOR YOU.  
**BRISBY:** THIS IS MY FIGHT.

**DON:** Well, I've got one for you. Why are the rats helping this field mouse?

**GARY:** You could say they are returning a favor for all the good Jonathan did for them years ago.

**DON:** No, no! Don't you get the feeling that he's mentoring her? I know we don't play it out in our movie, but I suspect that Jonathan's children, her children, are genetically superior in some way and therefore could figure in to the rats' future success.

**WILL:** How long have you had these feelings? You need a vacation.

**DON:** And I deserve one. Am I alone here?

**GARY:** In many ways, you are! But on this one issue, I do see what you're getting at.

**DON:** It means Justin is about to protest Brisby's courage. It's Nicodemus who sanctions her act of bravery. He has an agenda. It may be pitifully subtle, but it's there.

**WILL:** The real subtext is with Justin in sketch 29 and 30. What I read between his lines is a romantic interest in Brisby.

**JOHN:** Here we go again! I don't know. What I think is really going on in her head is a refusal to be shut out of her own dilemma. How embarrassing to just turn matters over to the "Rescue Police" and then just sit and watch from a safe distance. What Brisby knows in her heart is that she has no way out.

**WILL:** Really?

**JOHN:** Yes! She has to put herself in harm's way, no matter how looming her fears of the cat. And even though she never says that, her only text is, "I volunteer to drug Dragon." The closest she comes to verbalizing her feelings is, "This is my fight."



# PRODUCTION



**BRISBY:** PLEASE.  
**NICODEMUS:** AS YOU WISH.



**JUSTIN:** ALL...RIGHT. I'LL MEET YOU  
AT THE WEST SIDE OF THE FARM-  
HOUSE AT DUSK.



**BRISBY:** ...THANK YOU.



**DON:** I think what is really intriguing is the bigger point of view: Nicodemus' strategy is to arm Brisby with a weapon, the amulet, then set her up to volunteer to solve her own problem. It's like he's drawing her strengths up and out of her rather than just fixing the situation.

**WILL:** Why? Why is he doing that?

**DON:** Beats me.

**JOHN:** Well, whatever; it's the same reason the Great Owl squashed the spider that was about to kill Brisby.

**GARY:** But still, he didn't eat her but gave her council. The audience must be asking, "Who is this mouse that he takes notice of her?"

**WILL:** Nobody will ask, believe me! But on a practical note, I think you should cut sketches 35, 36, and 37. Trim the fat.

**GARY:** Fat?! No, no, no. Sketch 37 reveals the gathering of the troops and promises something is about to happen. It piques the audience interest in what's about to happen.

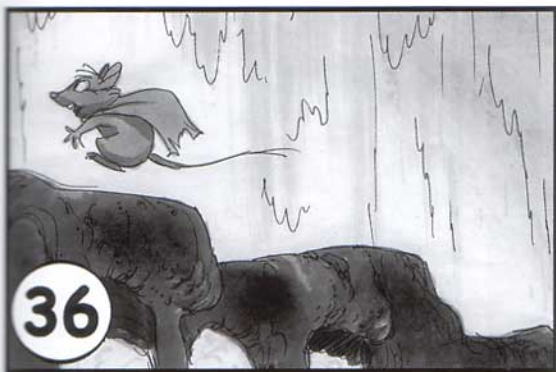
( End Story Meeting )

*Note: Notice that I have not been overly extravagant with the camera angles and camera positions. Simple design is very often the best choice. Compare sketches 20, 21, 22, 23, 24, 26, 31, and 33. All the scenes of Nicodemus and Brisby are shot from the same camera position. Whenever we cut back to the two main characters, I don't want the audience struggling to get their bearings. The acting is the star, the messenger, and the focus.*





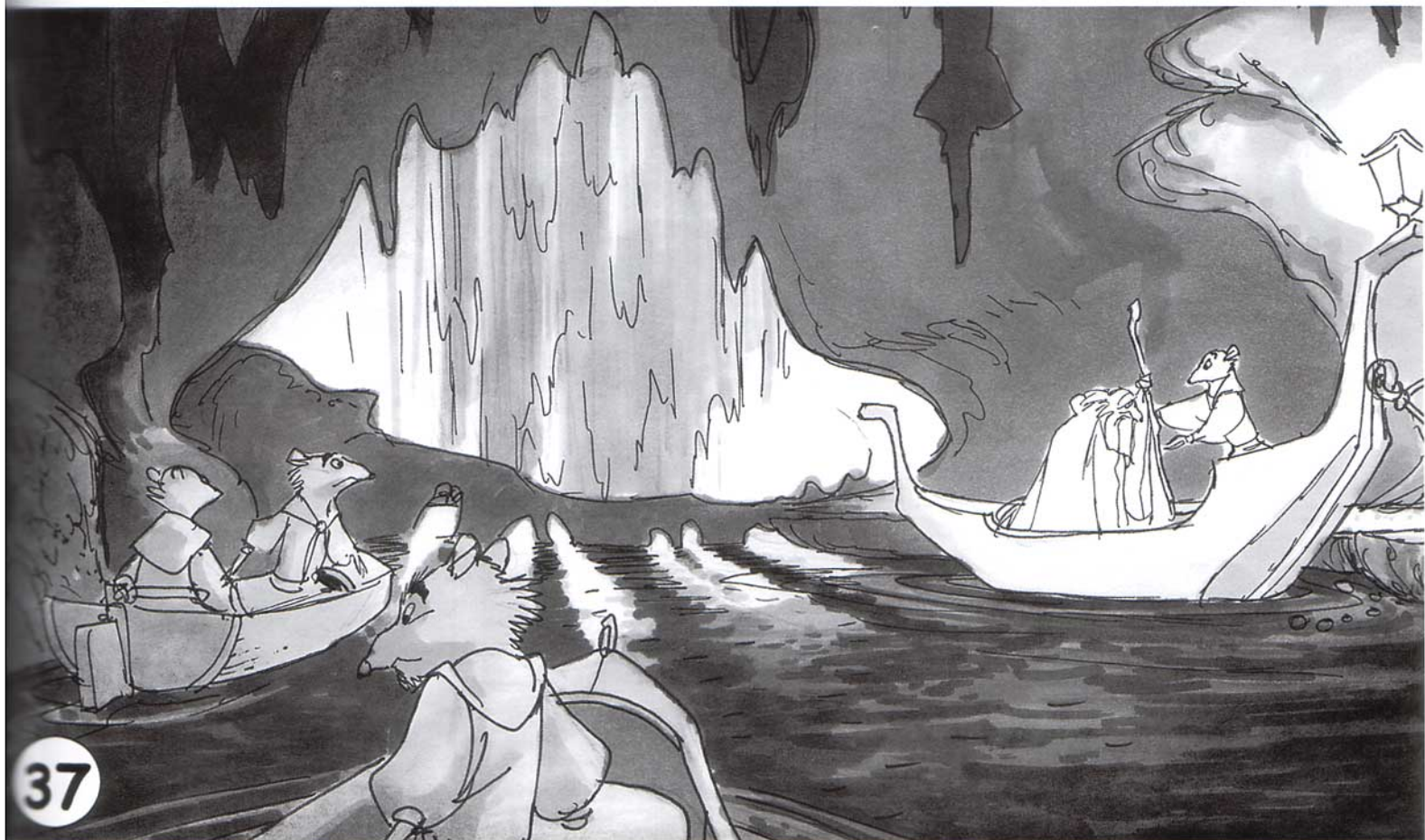
**35**  
BRISBY: GOOD-BYE... I MUST BE CRAZY.



**36**

*It would never do to mess around with new camera positions that could upstage all that. In many current animation films (especially 3D) the animators are so anxious to display the 3D camera's virtuosity that it sometimes becomes annoying. The rule should be to move the camera when and if it supports the message and the focus of the scene. Again, I applied the rule to sketches 25, 25.1, 34, 35, and 36. Every time you are tempted to move the camera, stop and ask yourself why the new scene will be strengthened by the different camera position. Justify all that you do.*

*The rhythm and cutting of these scenes will ultimately be legato, or smooth. This is a pensive moment in the film, not a chase. Its success will depend largely on the acting. It's not action-driven, nor comedic, nor suspenseful; it is a dramatic moment.*



**37**



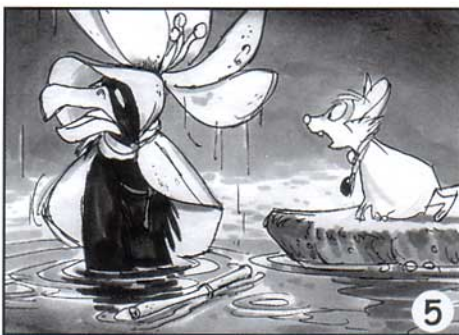
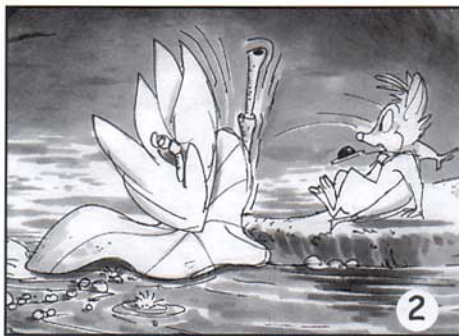
# PRODUCTION

## PLACING THE CAMERA

The world you see can be compelling, or not, depending on your point of view. Seeing a play from the last row of the "Peanut Gallery" is certainly different than from the front row or even the middle row. Myself, I'm blown away by working backstage and watching the play from the wings. You can't beat that. The point I'm making is this: where you decide to place the camera endows your story sketches with either strength or weakness. Charlie Chaplin advocated that comedy is best filmed in the long shot while tragedy is

best in the close-up; however, if a clown has a funny face, move in close and watch it. A good example of this would be a Jim Carrey movie. His brand of funny is sometimes the "mugging" of his face, so go closer.

Jeremy the crow has a funny face, so the camera loves to move in to see his expressions. He is also manic! I find with him that it's best to minimize camera movement. The amateur storyboard artist will want to move the camera around more than is needed. Don't fall into this trap.



BRISBY: JEREMY!

JEREMY: SSSHH!!!



JEREMY: I'M BEING FOLLOWED...  
BRISBY: WHAT?



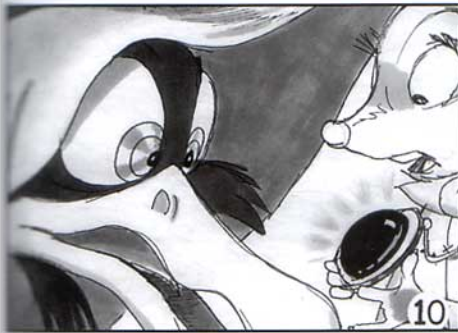
JEREMY: SSSH! THERE'S A  
CRAZY LADY...



JEREMY: ...WITH A HAT... SHE'S  
GOT BIG TEETH.



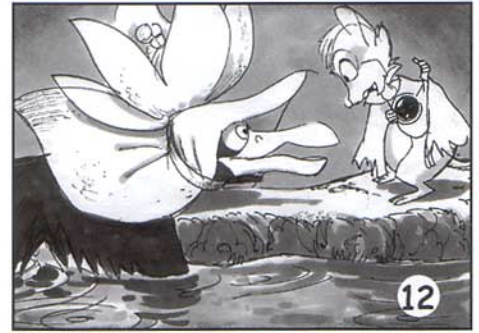
Check out this tiny section of storyboards. Jeremy discovers that Mrs. Brisby has a "sparkly" (the amulet), and he wants it. How would you change the placement of the camera to make this sequence stronger?



**JEREMY:** YOU'RE WEARING A SPARKLY.



**JEREMY:** CAN I HOLD IT...  
**BRISBY:** JEREMY, LISTEN...



**BRISBY:** I NEED LOTS 'N LOTS OF STRING TO...



**BRISBY:** ...MOVE THE BLOCK.



**JEREMY:** HEY...I GOT STRING...  
I BEEN SAVIN' 'EM.



**JEREMY:** BLUE ONES, GREEN, YELLOW, WHAT?



**BRISBY:** PAY ATTENTION.



**BRISBY:** GO GET ALL...



**BRISBY:** ...THE STRING YOU CAN.



**JEREMY:** OKAY... THAT'LL..



**JEREMY:** ...TAKE ALL DAY.  
**BRISBY:** GOOD! GET GOING!



**JEREMY:** I'M ON MY WAY.



# PRODUCTION



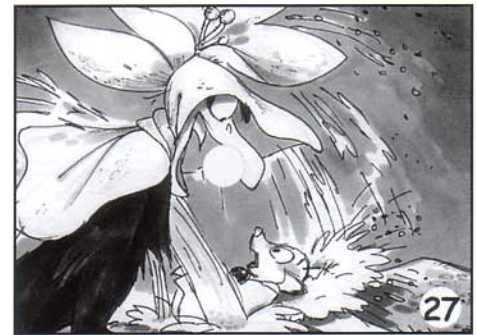
**JEREMY: (INHALE)**



**JEREMY: HA HA HA, I...AH... JUST THOUGHT...**



**JEREMY: ...I'D MENTION IN PASS-ING; I'VE ALWAYS...**



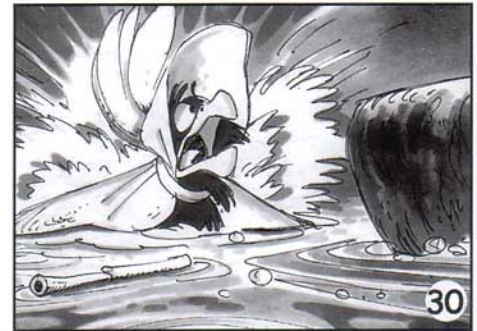
**JEREMY: ...WANTED A SPARKLY OF MY VERY OWN.**



**BRISBY: WILL YOU...**



**BRISBY: ...GET GOING?**



**JEREMY: ...SURE...AHH...**

There are four questions I continually ask myself as I storyboard. I go through this exercise hoping to eliminate those pesky little sketches that are redundant. The four questions are as follows:

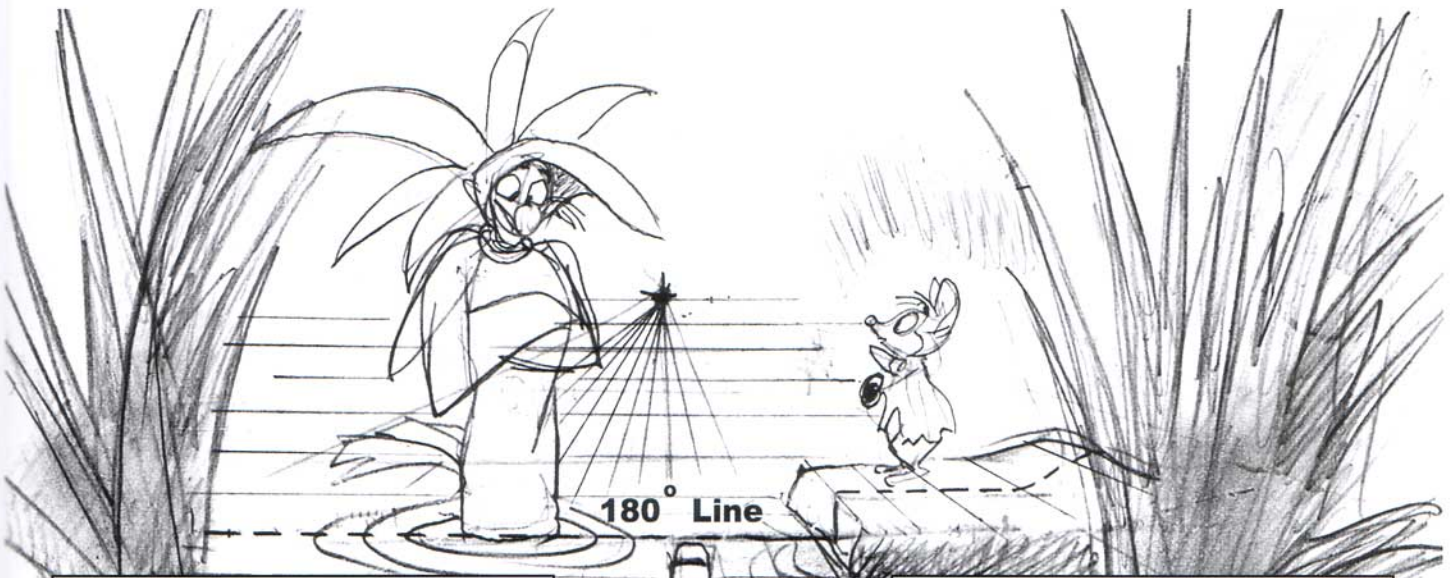
1. What is the new information that is given the viewer?
2. Does it advance the personality of the character?
3. Does it advance the plot?
4. What is at risk, or what is the tension of the scene?

Now, a word of caution. These four criteria are questions I ask after the first pass at boarding. Having said that, if you allow yourself to get too mechanical in the process, that is, trying to be too logical at this point, your artistic motors could lock up. Whatever you do, stay intuitive. Let the muses speak to you. Sketch out the ideas as you feel them. Afterwards, apply the four questions to each one of your sketches. The questions are merely a way of analyzing and editing your work.

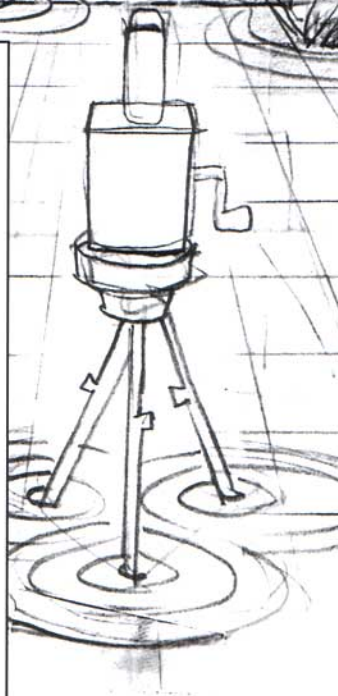
Before I get to the finished sketches that you see on these pages, I sketch the ideas minimally while thinking to myself, "What do I want the audience to feel when they see this?"



On this page, I've drawn Mrs. Brisby and Jeremy standing on their marks on the set so that we can talk about the camera line. What is the camera line? When setting the camera, there is a very important rule to keep in mind. Draw an imaginary 180-degree line connecting the two characters on stage. You may now position your camera anywhere you choose on one side of the 180-degree line, but do not cross the line to get a shot. If you do, screen directions will all reverse. If you set up a left/right relationship between your characters for a given sequence, keep the left/right relationship consistent.



In returning to a previously shown set within a movie, keep the camera in the same spot as previously used. Why? Because the landscape will be familiar; the audience won't have to spend time getting their bearings. Their focus will be 100 percent on the characters and the story. But let's say it's an action scene, that the characters are moving around on the set. The camera line, the 180-degree line between them will also be moving around. In this situation, you should keep the left/right relationship of the characters consistent.



To accurately capture the excitement of the actors, the camera will have to find new positions. It must move about to access the best view of the action or emotions. It can even cross the 180-degree line if we, the audience, witness the crossing. In live-action film, the steadycam can go anywhere, because the change of camera position is observed on screen. No one gets confused about geography. The computer (CGI) can effectively imitate the steadycam, but you will have to design the moves in your boards.

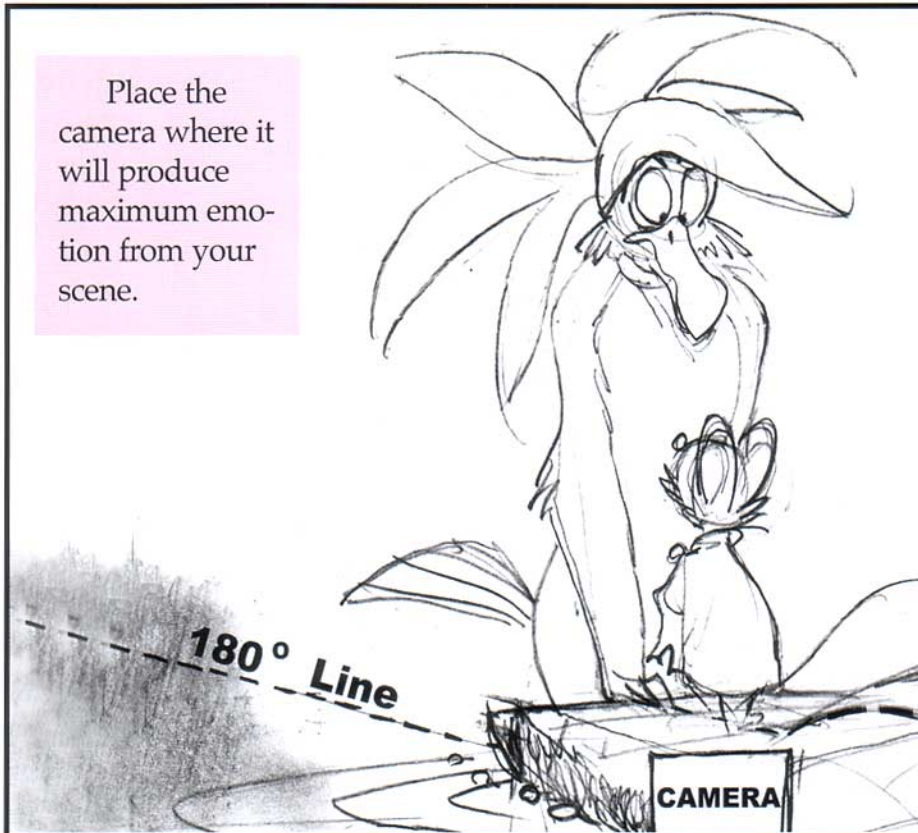
**Note:** You must realize by now that I'm making constant references to live-action filming. The similarities to boarding are amazing. Your own eyes represent the camera position. The sketches you draw represent a single frame of the film. Your artistic sensibilities determine at what angle we see the characters. If you keep that notion somewhere in the back of your head, your sketches will be more clear and your continuity trackable.



# PRODUCTION

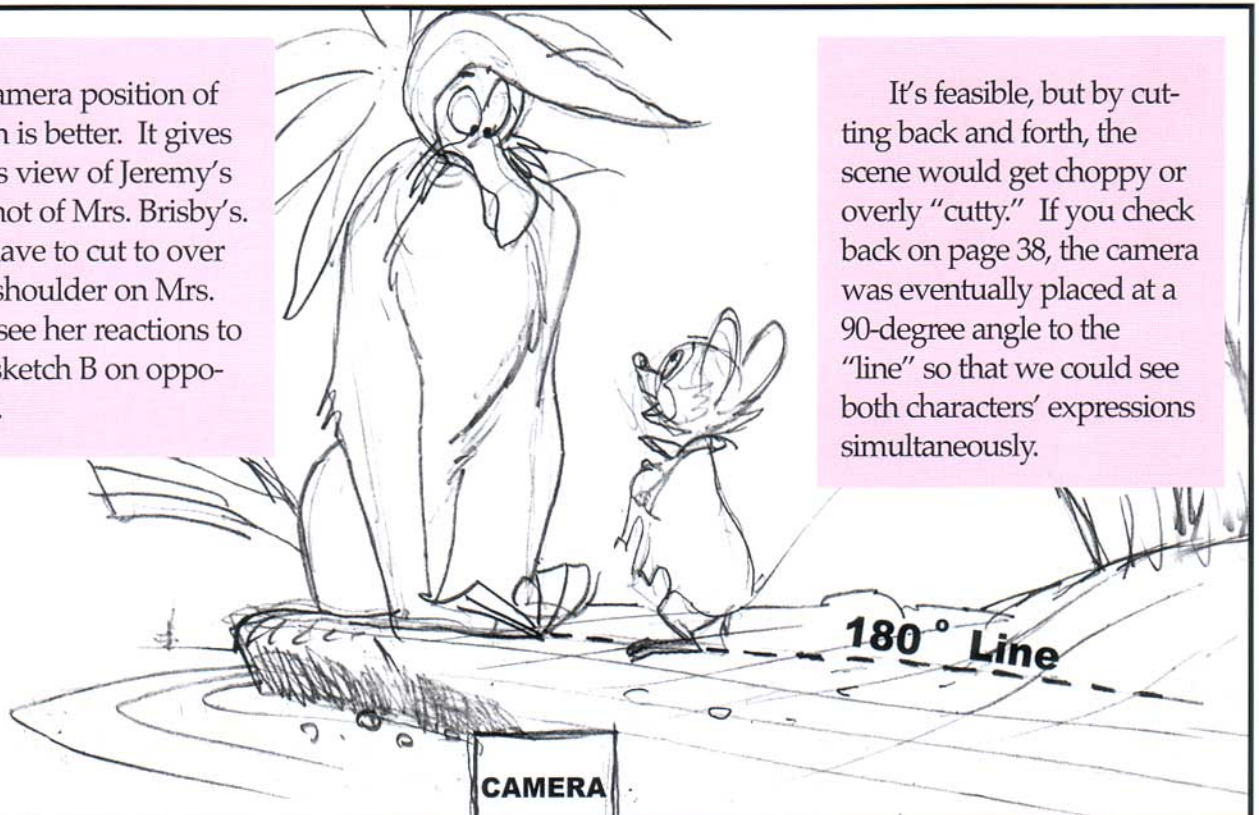
## STAGING & SILHOUETTE

Place the camera where it will produce maximum emotion from your scene.



The two sketches on this page represent the camera being placed in two different positions. In this sketch, the camera is over Brisby's shoulder, close to the 180-degree line. The angle isn't effective because it hides Brisby's face and also stacks the silhouettes of the two characters. The staging is weak. By moving the camera left, as illustrated in the sketch below, the space between the two characters widens, allowing for strong silhouettes of each character. Now, we can see some of Brisby's face. It's better, but still not the greatest.

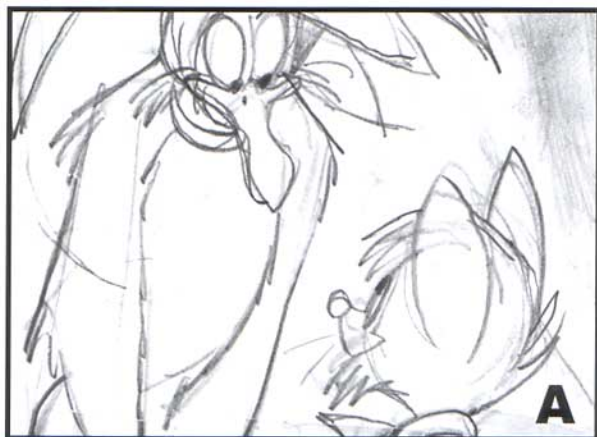
The camera position of this sketch is better. It gives a fabulous view of Jeremy's face, but not of Mrs. Brisby's. I would have to cut to over Jeremy's shoulder on Mrs. Brisby to see her reactions to him (see sketch B on opposite page).



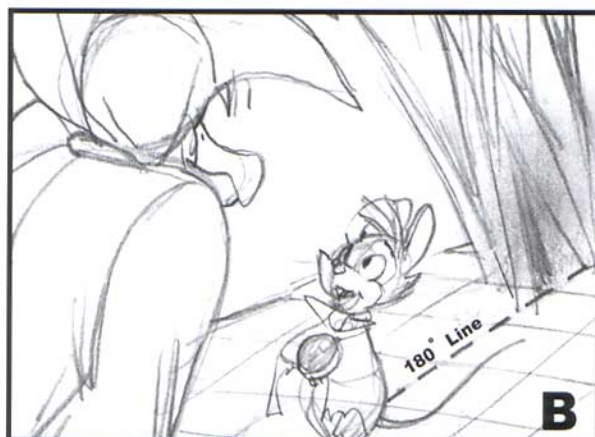
It's feasible, but by cutting back and forth, the scene would get choppy or overly "cutty." If you check back on page 38, the camera was eventually placed at a 90-degree angle to the "line" so that we could see both characters' expressions simultaneously.



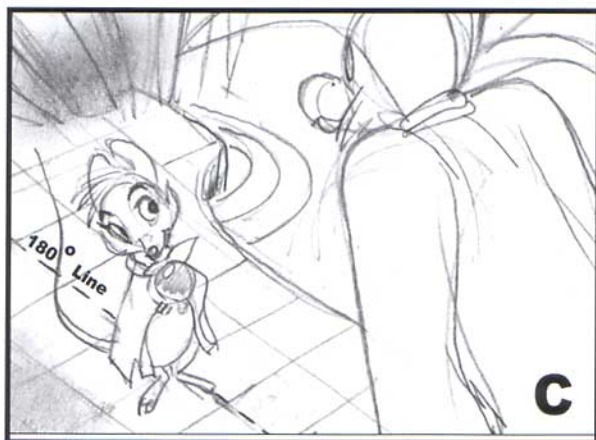
# THE MOVING CAMERA



Sketches A, B, C, and D represent a moving camera shot, comparable to the camera crane in live-action.



The camera starts low, moving upward over Brisby's left shoulder to a position over Jeremy's right shoulder, then...



...continues to circle, crosses the 180-degree line, and slowly descends to reveal Jeremy's face over Brisby's right shoulder.



Now we have a clear view of Jeremy's expressions on the other side of the 180-degree line.

The animation camera stand (ACS, or Rostrum Camera) is now an antique. It has been replaced by a very mobile "camera" inside the computer. The ACS could accommodate six levels of cels, pressed together over a flat background under 70 pounds of pressure from a glass plate. But methods have changed; the backgrounds have become three-dimensional. The computer gives the impression that it can move freely in and around the art with a constantly changing perspective. To accomplish this effect, as shown above in A, B, C, and D, the set would first have to be constructed and mapped with paintings in the com-

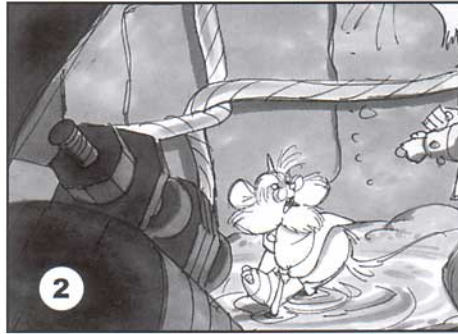
puter, then the camera moves plotted out and rendered. From those rendered computer moves, a wire frame of the characters is constructed and positioned in the set. The move is then duplicated to give character animators a guide showing how the move changes the perspective on the character. In other words, the animator's drawings will have a built-in camera move to match the movement of the moving 3D background. The animators will draw over print-outs of the wire-frame character level. If the characters are 3D, you can skip the printout and animate the models in the computer with the same change in perspective.



# TIMING



**1**  
JENNER: ...NO JOURNEY TO THORN VALLEY.



**2**  
MR. AGES: MRS. BRISBY  
JENNER (OFF-SCREEN): COME.



**3**  
BRISBY: ...THE CHILDREN...  
MR. AGES: THEY'RE...



**4**  
MR. AGES: ...FINE... NICODE-  
MUS...



**5**  
MR. AGES: ...IS DEAD.  
BRISBY: OH.



**6**  
BRISBY: ...OH NO...  
MR. AGES: (SOBBING)

## PACING YOUR SEQUENCE

Before boarding an action or chase sequence, I find it useful to list the beats. Keep the list simple, like a grocery list. Each beat will represent a sketch or two.

### List example:

- |  |  |
|--|--|
| <p>A. Jenner tells the rats that with Nicodemus' death, the journey to Thorn Valley is out.</p> <p>B. Brisby arrives with news about NIMH.</p> <p>C. Brisby learns of Nicodemus' death.</p> <p>D. Brisby announces NIMH is coming in the morning to exterminate the rats.</p> <p>E. Rat chorus panics when they hear the news.</p> <p>F. Jenner attacks Brisby to silence her.</p> <p>G. Ages calls for Justin's help.</p> <p>H. Justin, without weapon, jumps between Jenner and Brisby.</p> <p>I. Jenner sees the amulet around Brisby's neck.</p> <p>J. Jenner wounds Justin, then...</p> | <p>K. ...Jenner wrestles Brisby to the ground.</p> <p>L. Justin recoups and kicks Jenner and sends him rolling.</p> <p>M. Sullivan throws Justin a sword.</p> <p>N. Jenner mortally wounds Sullivan.</p> <p>O. Justin accuses Jenner of killing Nicodemus.</p> <p>P. Justin and Jenner spar.</p> <p>Q. Jenner says, "I've learned one thing: Take what you can, when you can." Justin: "Then you've learned nothing."</p> <p>R. Jenner gets the advantage on Justin.</p> <p>S. Justin trips Jenner with a table and runs him through with a sword.</p> |
|--|--|





**JENNER:** (LISTENING)  
**BRISBY (OFF-SCREEN):** AHM...



**BRISBY:** ...YOU'RE IN GREAT DANGER... NIMH IS COMING!



**FIRST RAT:** NIMH?  
**BRISBY:** IN THE MORNING.



**BRISBY:** ...MUST BELIEVE ME.  
**FIRST RAT (OFF-SCREEN):** WHAT...



**FIRST RAT:** ...IF IT'S TRUE.  
**SECOND RAT:** WE'LL BE KILLED!



**JENNER:** DON'T LISTEN.  
**BRISBY:** GET OUT NOW!



**JENNER:** (GROWLS) SHE'S HYS-  
TERICAL.



**BRISBY:** AAAAH!  
**JENNER:** YOU...



**JENNER:** ...GET OUT. I'VE...



**MR. AGES:** ...JENNER.



**JENNER:** (GROWLS)  
**SULLIVAN:** JUSTIN.

Fight sequences are the most challenging to board because they are often predictable. The challenge is to stage a fight that's unique. The movie *The Matrix* did it! With today's sophisticated audience, if I were boarding this sequence again, the fight would have to go far beyond a mere clashing of the swords to be truly compelling.



# TIMING



(THE STONE GLITTERS)  
JENNER (OFF-SCREEN): THE...



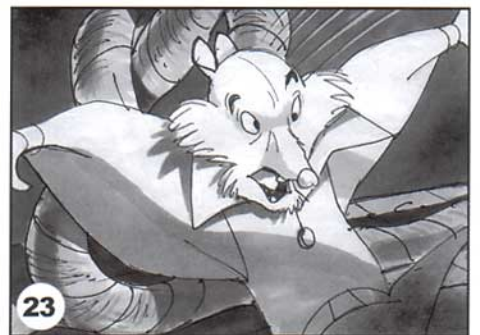
JENNER: ...STONE.  
JUSTIN (OFF-SCREEN): JENNER.



JENNER: GET OUT OF MY...



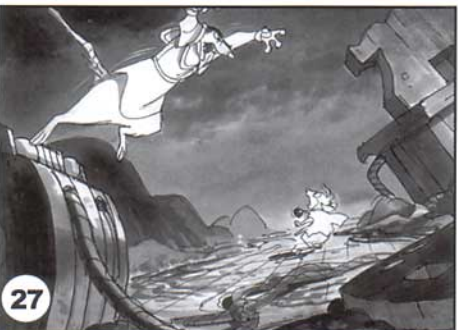
JENNER: ...WAY.



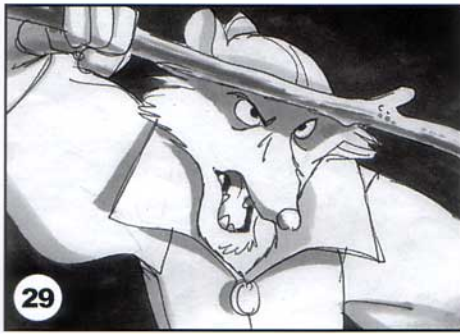
A fight sequence should be fast-paced. Most sketches represent about 1.5 seconds of screen time. Each sketch must be so clear that, in a glance, you get what it's about. This is referred to as "readability." There are a few devices I use to get instant readability. See opposite page.



JENNER: I WANT THAT STONE.







JUSTIN: JENNER!



SULLIVAN (OFF-SCREEN): JUSTIN!



SULLIVAN: ...JUSTIN!



SULLIVAN (OFF-SCREEN): MY SWORD.



**Good character silhouettes.** Study the sketches on these pages. The characters are not stacked over one another.

**Focus the lighting.** The time you have to look at a single sketch and understand its message is similar to viewing flash cards.

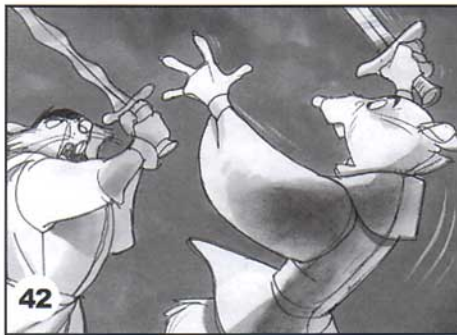
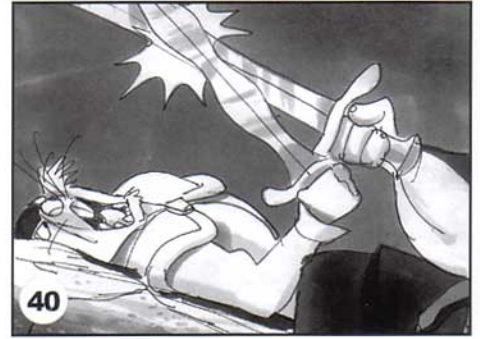
**Create tension.** Notice the sketches on these pages. Justin, the hero, is nearly always moving left to right while Jenner's direction is the reverse of that. We read left to right; that is our tradition. It's uncomfortable if the villain character persists in going right to left against tradition. It's subconsciously worrying and it makes the viewer uneasy.

**Be aware of the 180-degree camera line.** If you want to disorient the viewer or create chaos, you could deliberately cross the 180-degree line in your cutting. Lots of close-ups can also confuse the viewer.

**Increase the jeopardy with each new sketch.** This will underscore the emotional arc of the two combatants. In sketch 25, Justin is wounded and the stakes are raised. In sketch 36, Justin gets a sword. In sketch 37, Sullivan is killed. Justin must destroy Jenner. Don't make it easy. It should appear that Justin will lose, and only by some miracle does he win. Don't telegraph the outcome.



# TIMING



JENNER: I'VE LEARNED THIS MUCH...



The action on this page shows Justin finally getting the upper hand and inflicting the mortal blow to Jenner. If we had ended the fight sequence there, it would not have been satisfying. The secret of good storytelling is to never let your audience guess where the story is going.





**JENNER: ...TAKE WHAT YOU CAN WHEN YOU CAN.**



**JUSTIN: THEN YOU'VE LEARNED NOTHING.**



**JENNER: (LAUGH)**



**JUSTIN: ...WE JOURNEY TO THORN VALLEY.**

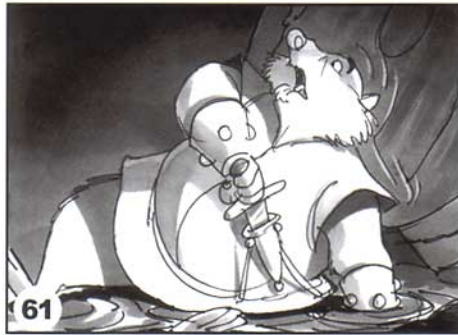
If you signal your viewers that you're about to go right, go left instead. The movie should be a puzzle that viewers can almost figure out, but not quite. Remember, suspense is more riveting than mystery. So just as Justin flings his sword, and we think the threat is over, Jenner revives and silently positions himself for a rear attack. I find myself saying, "Turn around, Justin! Look, he's not dead!" Now, what happens that we didn't see coming is that Sullivan, who I had assumed was dead, rises up in a moment of final desperation and flings a dagger at Jenner. This act seems to redeem Sullivan for his past crimes while getting rid of our villain. But, wait! Jenner isn't really the villain of our story.



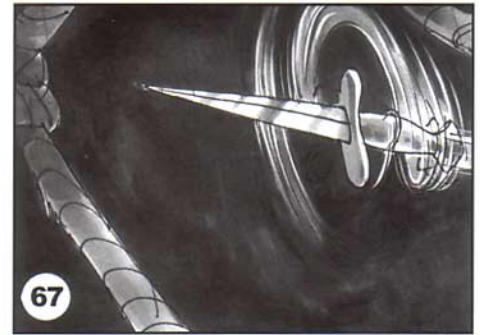
# TIMING



**60**  
JUSTIN (OFF-SCREEN): WE WILL  
LEAVE NO TRACKS...



**61**  
JUSTIN (OFF-SCREEN): ...NO  
EVIDENCE THAT THE...



**67**  
JUSTIN: ...RATS OF NIMH EVER  
EXISTED. COME...



**63**  
BRISBY: (GASP)  
MR. AGES: JUSTIN!



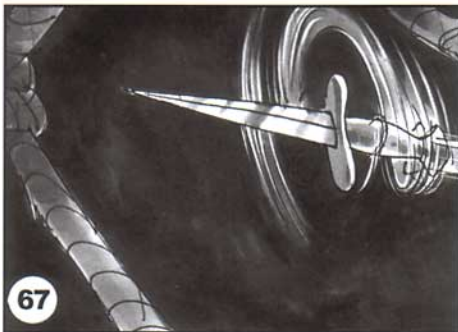
**64**



**65**  
JENNER: (GROWL)



**66**



**67**



**68**  
JENNER: (SCREAM)

Jenner is more like one of the obstacles Brisby meets on her journey to save her son, Timmy. The real antagonist is the tractor and the spring plowing. Indeed, it's not a person at all but a life-threatening situation. Seeing *The Secret of NIMH* nowadays just bothers me, because we could have done so much more with the tractor sequence, especially with what we now have in CGI technology. Also, I could have increased the suspense by suggesting that the tractor is being quickly repaired by the farmer; therefore, time is

running out for Brisby.

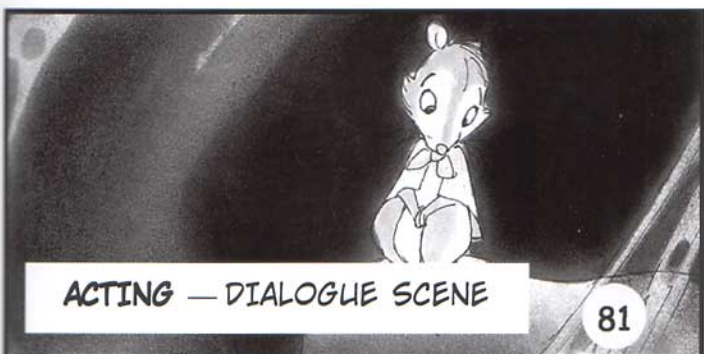
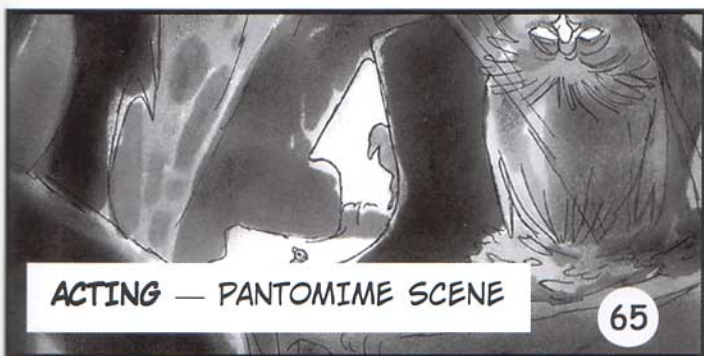
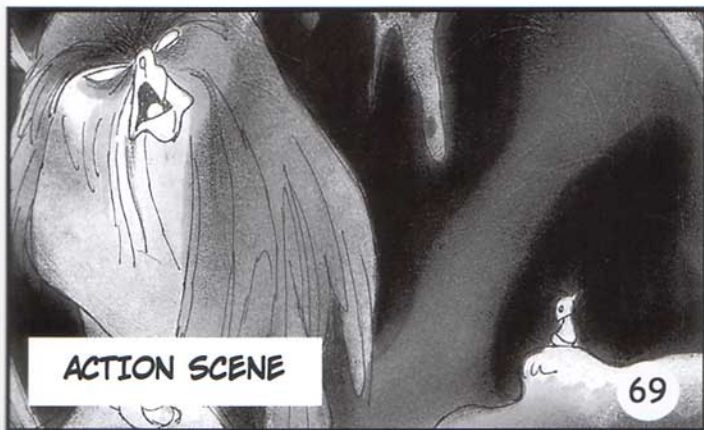
What I want to impress upon you is the following: Thoughtfully scrutinize your boards. Find places to insert prerogative ideas that you will answer later in the movie. Create suspense! Make your audience ask, "What's going to happen?" or "I can't imagine how this is going to turn out." Point the action in one direction, then suddenly reverse it. Keep your audience in the loop, but mostly keep them guessing.



# TIMING YOUR SKETCHES

Hopefully, your story sketches represent a visualization that's playing in your head. Now, visualize each sketch moving as you time it out with a stopwatch. I keep a timing chart nearby to keep the process easy. Focus on visualizing the action. When you think you know the seconds, write the footage in the upper right-hand corner of the sketch. I use three different ways to time a sketch:

1. Put a stopwatch to the vision in your head.
2. Put a stopwatch to a line of pre-recorded dialogue.
3. Put a stopwatch to a rhythm or beat of music.



Should you be so lucky as to find a “needle-drop” that captures the spirit of your scene, play it as you board, because it will set the mood. But a word of caution: when you time to music, you will tend to time too long. The energy of the scene will become sluggish. Naturally, you won't know for sure until you shoot your sketches into an animatic. Once you have it on film or in the computer, you'll be making footage adjustments on the sketches, I guarantee it! When I watch an animatic played back on the monitor, I always compare it to the original vision in my head. If I've fallen short, I keep working the process.

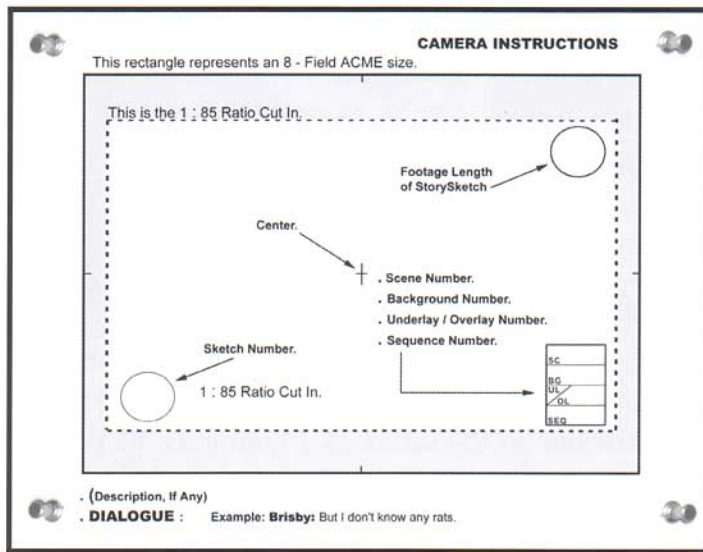
## CONVERSION TABLE

SECONDS	FRAMES	FOOTAGE
0.5	12	12 X
1.0	24	1 08
1.5	36	2 04
2.0	48	3 00
2.5	60	3 12
3.0	72	4 08
3.5	84	5 04
4.0	96	6 00
4.5	108	6 12
5.0	120	7 08
5.5	132	8 04
6.0	144	9 00
6.5	156	9 12
7.0	168	10 08
7.5	180	11 04
8.0	192	12 00
8.5	204	12 12
9.0	216	
9.5	228	
10.0	240	

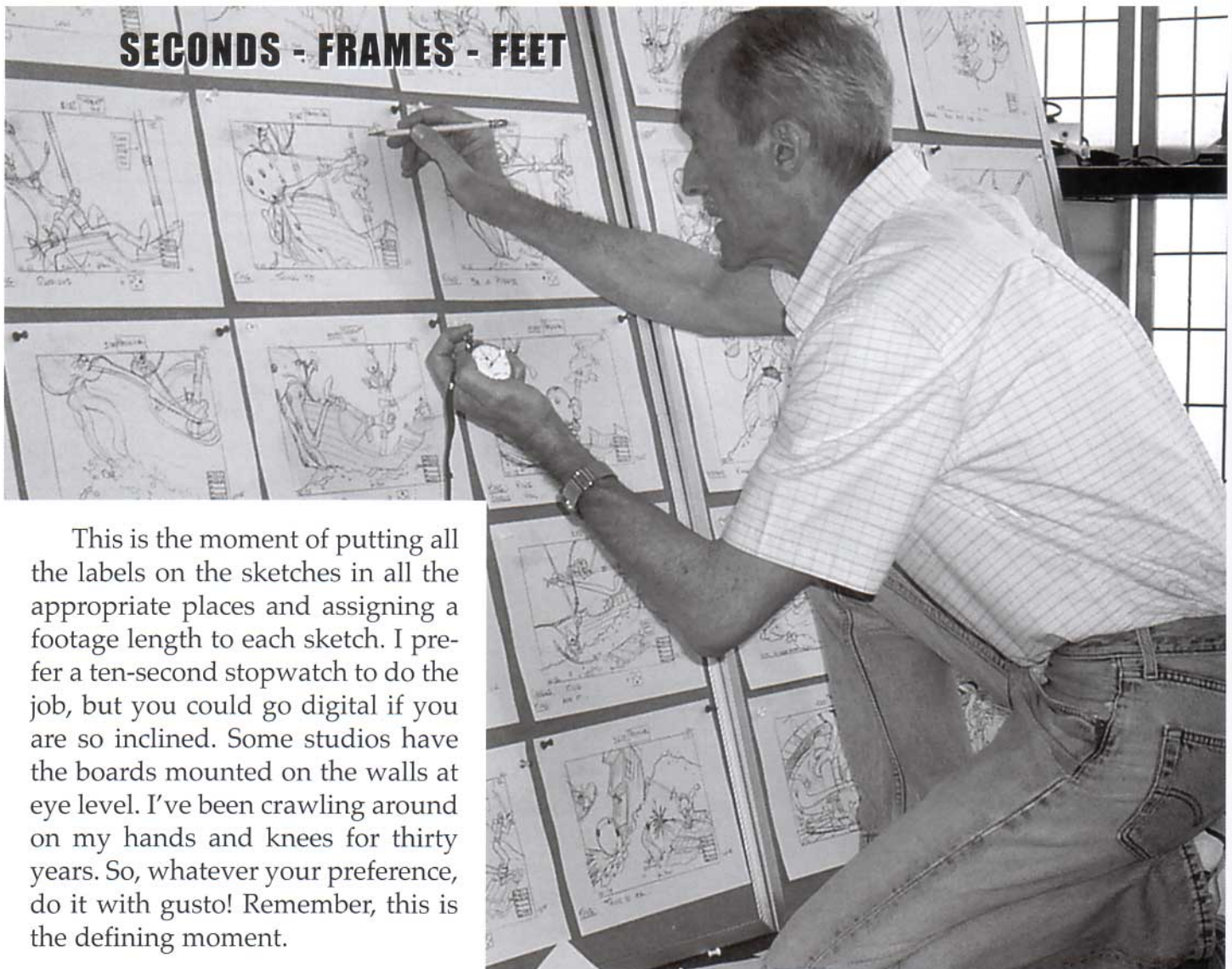




# TIMING



Timing is an ongoing process. You will be adding and taking out frames right up to the end of rough animation. All of this nip-and-tuck is to keep the “fat” out of your movie and keep the energy driving forward. When a scene has made its statement, it’s time to cut to the next one. There are usually four to eight frames wasted at the end of the scene. I blame it on the serendipity of animation, because plan as you will, the tendency is to animate on the fat side. Also, blame it on the “hook-ups” of the scene. We’ll discuss the hook-up later. But be aware that several animators work on the scenes. Even though the animators may agree on how the hook-ups will work, when their animated scenes are cut into the story reel, the director will have to make adjustments.



This is the moment of putting all the labels on the sketches in all the appropriate places and assigning a footage length to each sketch. I prefer a ten-second stopwatch to do the job, but you could go digital if you are so inclined. Some studios have the boards mounted on the walls at eye level. I’ve been crawling around on my hands and knees for thirty years. So, whatever your preference, do it with gusto! Remember, this is the defining moment.





# Stage, Film & Animation

## Similarities & Differences

The theater seat is stationary. In contrast, the motion-picture camera has the freedom to move about. The camera eavesdrops on the subtlest of emotions and movements. Actions and intimacy are the ruling dictum. So, from our stationary, distant theater seat, we need to hear the words of the actors to know their feelings. A play, it has been said, is more about the actors' words, while a movie is more about the actors' thoughts. For animation, we have borrowed from both.

Since the theater seat is stationary and can be far from the actors, snappy timing, broad actions, strong expressive poses, and exaggerated or caricatured facial movements become the rule to communicate to audiences. It was learned early in animated film production that a similar approach was necessary. Using the subtleties of live-action filmmaking with animated characters proved to be ineffectual. The characters appeared lifeless and weightless. Broad, caricatured movement and timing helped sell believability and humor with animated characters. These same rules apply to dance, stage acting, and mime. Anticipation to action is also very important in both theater and animation, while not being as important in live-action film.

Although animation uses the camera in a fashion similar to live-action filming, it uses the acting and body movement techniques of theater. Subtle facial movements must be exaggerated or caricatured to ensure that the characters' feelings are communicated to the audience. This is not the case with live-action filmmaking.

If you examine a traditional animated film, you will see that timing is key to the characters' movements and humor and to the film's pacing. Timing is also important in live action, but you'll notice that in animation it is speeded up and much more exaggerated.

Timing is everything, from pacing the film edits to the tiniest actions of the animated characters.

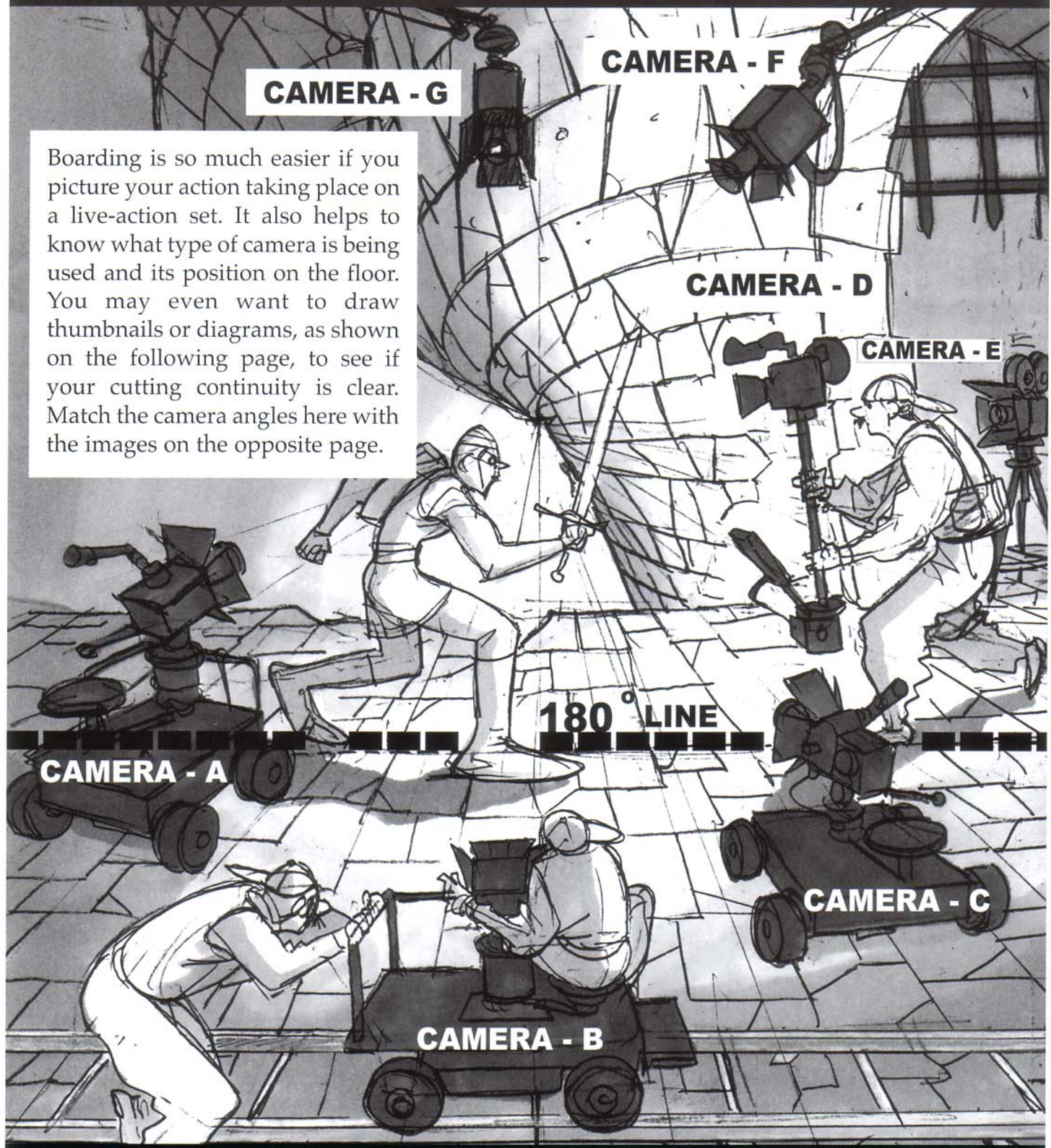
In a play, the staging of the sets, props, and characters, with positioning, spot-light, and limited movement by secondary characters, helps focus the audience's attention on the central character(s). We use the same rules when staging and timing our storyboards for animation.



# MECHANICS

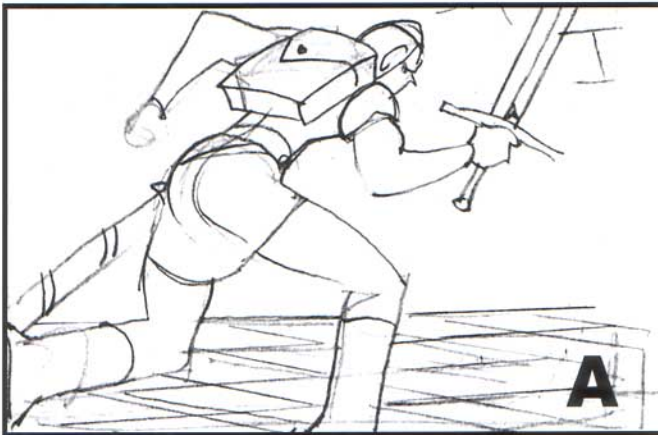
## THE SET & CAMERA PLACEMENT

Boarding is so much easier if you picture your action taking place on a live-action set. It also helps to know what type of camera is being used and its position on the floor. You may even want to draw thumbnails or diagrams, as shown on the following page, to see if your cutting continuity is clear. Match the camera angles here with the images on the opposite page.

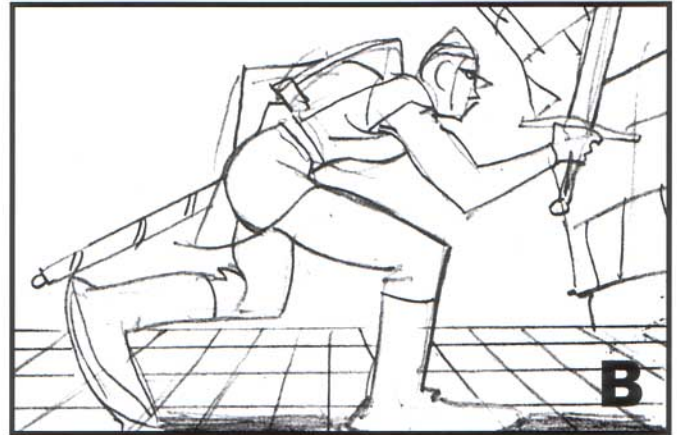


For a very difficult blocking of action or choreography, you could even construct a miniature version of your set out of cardboard. Then, using a digital camera, photograph and print the camera positions from various angles. This really helps achieve good layouts and could be done prior to boarding.

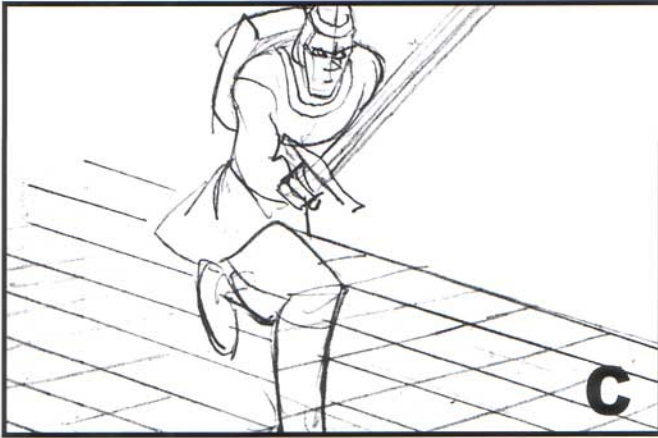




**PAN SHOT**



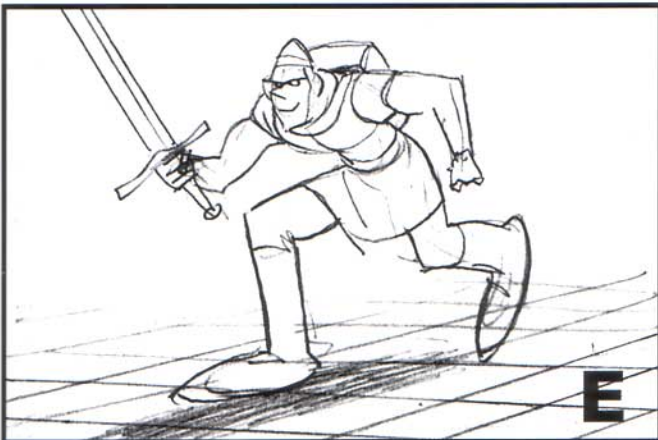
**DOLLY, OR TRAVELLING SHOT**



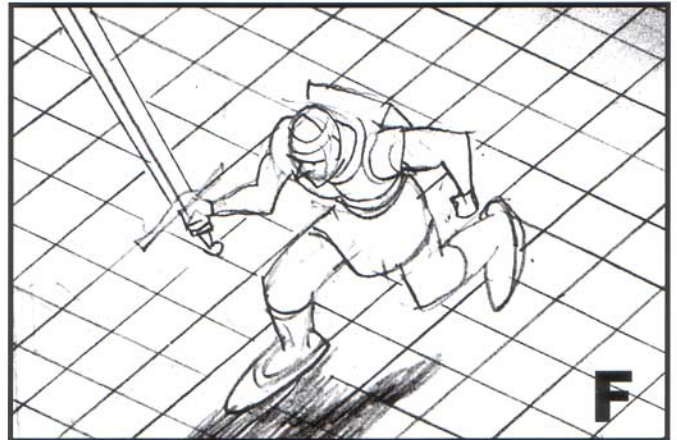
**PAN SHOT**



**STEADICAM SHOT**



**CROSS-THE-LINE PAN SHOT**



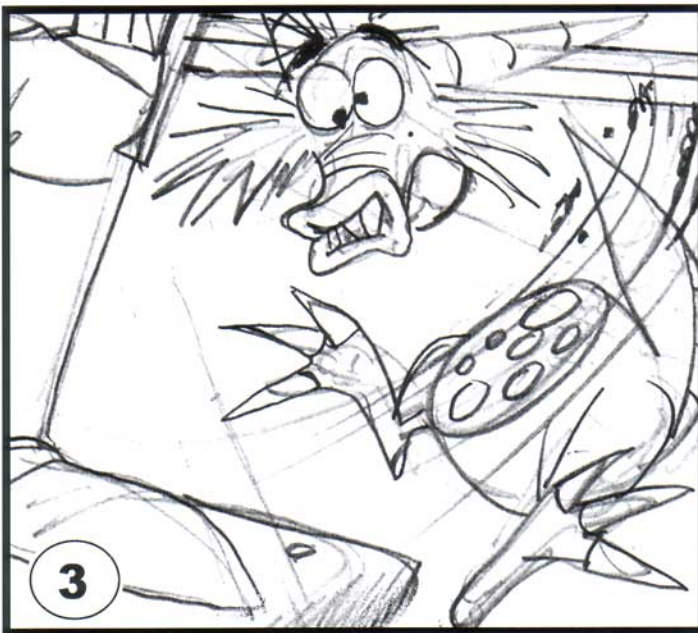
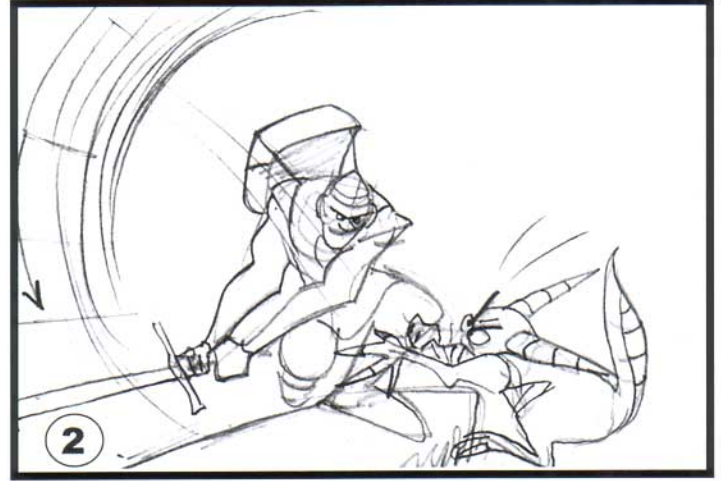
**CROSS-THE-LINE DOWN SHOT**

Camera position speaks volumes about the emotions of a scene. The actor uses facial expressions and body language to convey his/her feelings, so place the camera where it will have maximum access to seeing that. These choices are not mechanical but often intuitive. You must develop a feel for it. The goal is to make your audience have an emotional response to your main character. Where you place the camera will help create that and give more information about the protagonist's dilemma. For example, long shots for tragedy, close-ups for character thoughts and comedy, down-shots for weakness, and up-shots for strength.

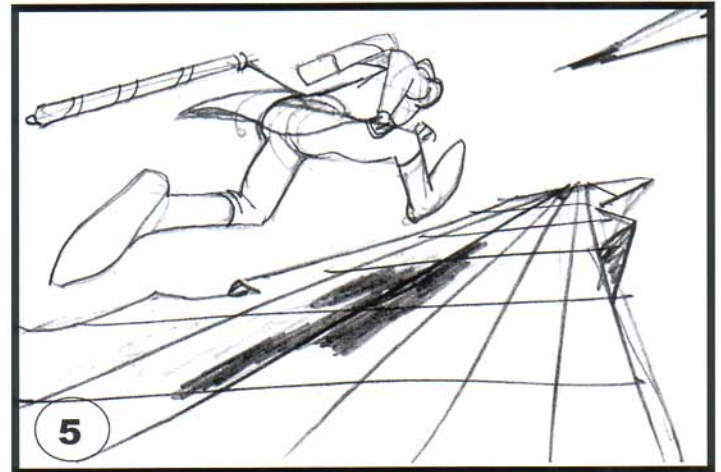


# MECHANICS

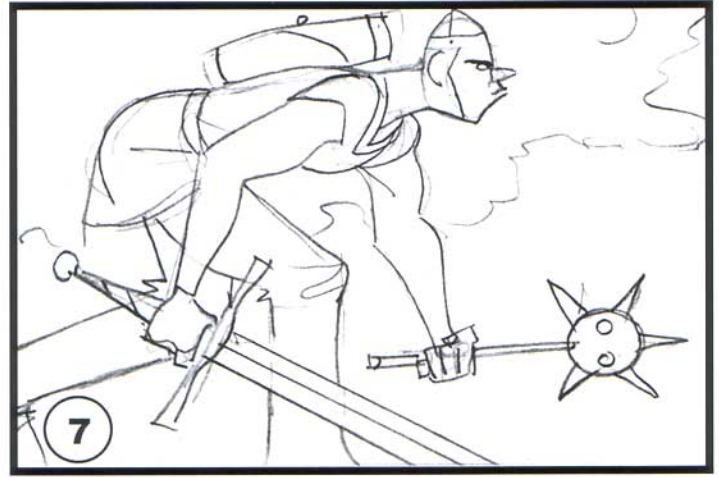
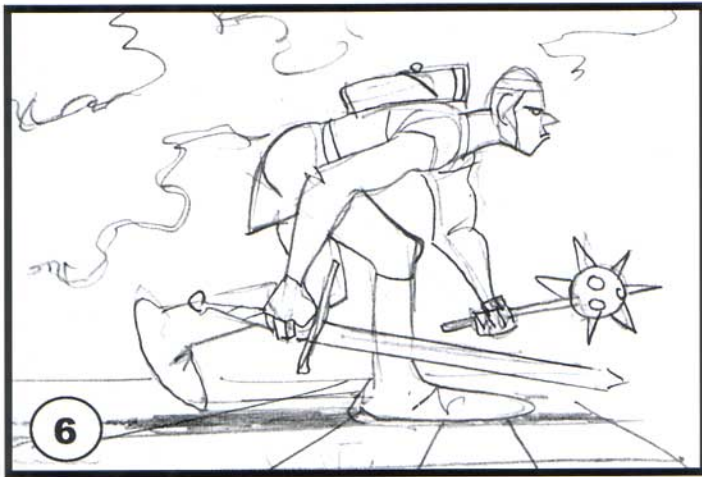
## HOOKING THE SCENES TOGETHER



For me, the best scene hook-up is one that minimizes the audience's awareness of the camera's shift in position. My first choice is a mid-action cut. In sketches 1 and 2, Dirk leaps from a precipice and swings his sword at a Giddy-Goon. Just prior to the swipe of Dirk's sword, the camera shifts to a closer view of the beast (sketch 3) to catch the surprised look on his face. Make sure that the speed of the sword's swing is the same in the second scene or close-up. In the next scene, Dirk is running full speed. Sketch 5 is a longer shot and reveals to us where he is going. Dirk's run should be the same speed in both scenes. Don't repeat Dirk's position in the first frame of the second scene. It should feel like cameras A and B were shooting the action of the scene at the same moment in time. Now, let's discuss that annoying faux pas called the "jump-cut."







Sketch 6 is a full-figure shot of Dirk sneaking. If you were to suddenly move the camera position to that represented in sketch 7, it would feel only slightly closer and would seem as if the camera jumped suddenly forward. If you had been slowly moving in, or “trucking-in,” on sketch 6 and cut to a non-truck-in shot on sketches 7, 8, 9, or 10, that would also appear to jump. A camera move is comparable to a character action. Remember the rule! Cut mid-action? If you end a scene while still trucking in, finish the truck-in in the following scene. Don’t start a truck move on the first frame of a scene unless it is hooking up to a camera truck move still engaged on the last frame of the previous scene.

Another extremely annoying “jump” in cutting has to do with color matching. From scene to scene, the painted backgrounds have to match in color, mood, and lighting.





# MECHANICS



## DESIGNING FOR LEVELS

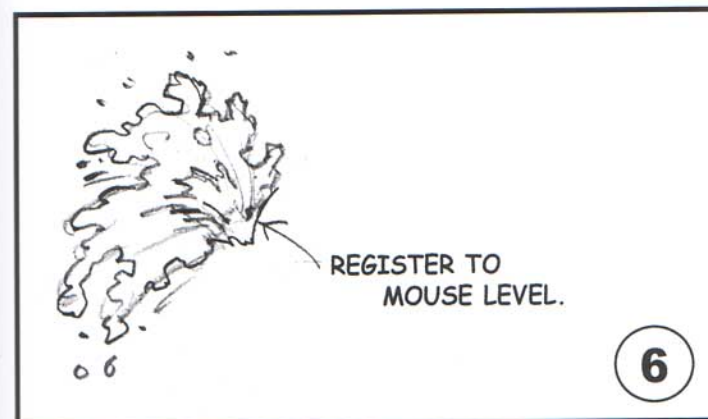
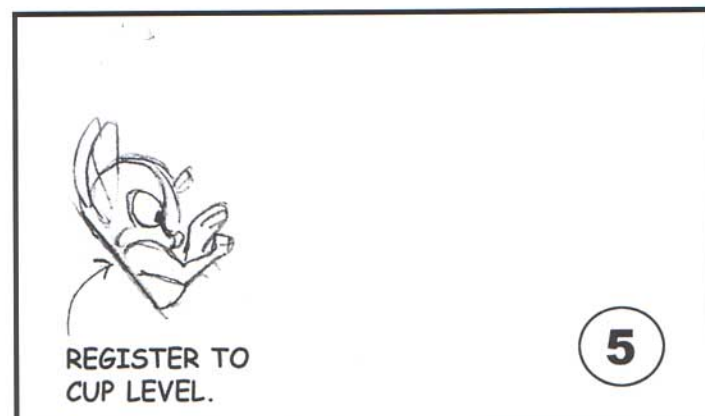
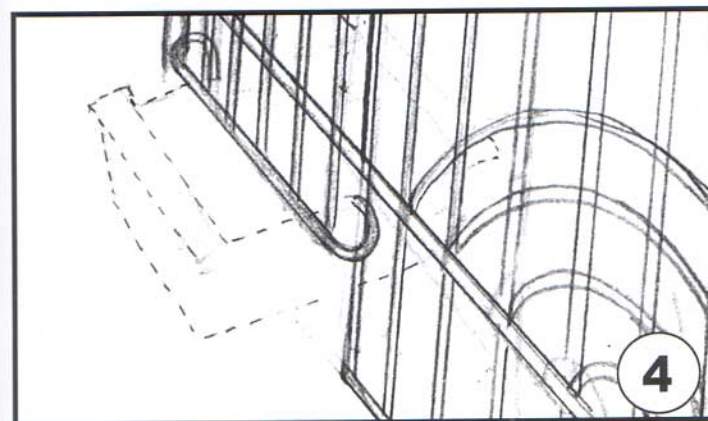
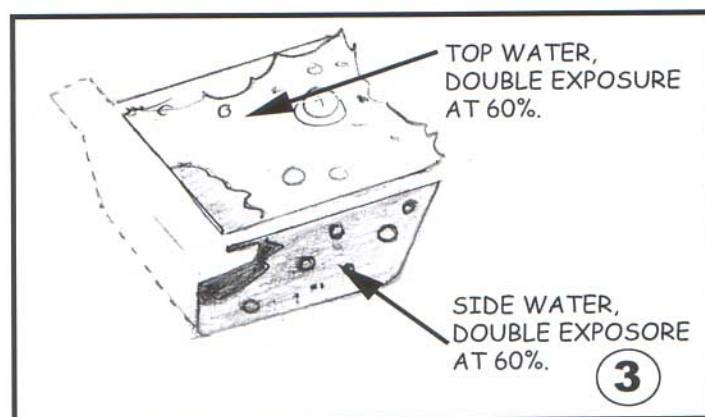
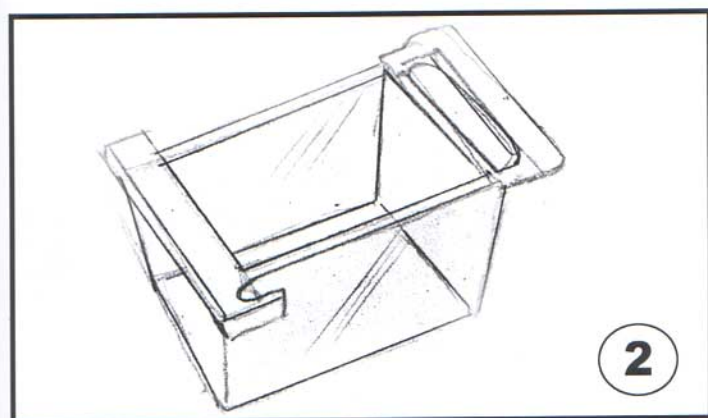
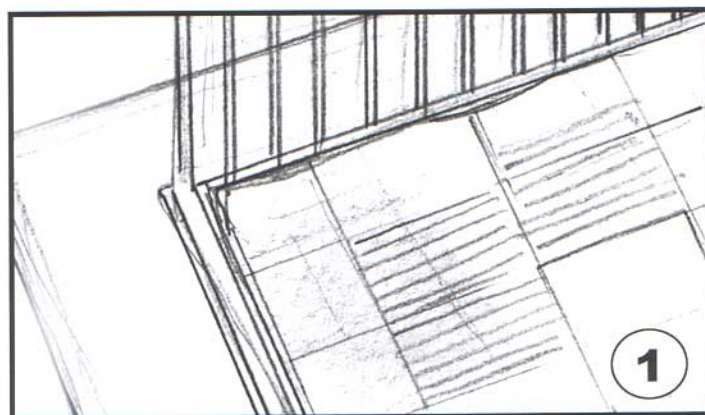
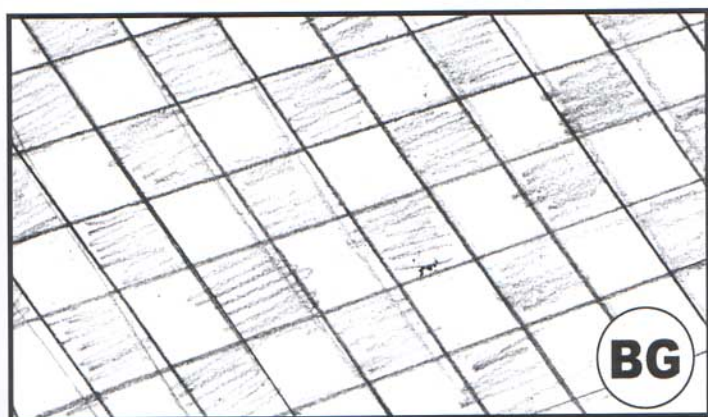
Since the storyboard artist, in some ways, is the architect of the movie, it would be worth mentioning that those simple little story sketches that appear so innocent on the surface often become engineering nightmares in the production process. On the *NIMH* movie, it was Mrs. Brisby's escape from the birdcage that nearly sent the lot of us screaming into the desert.

When you break the above sketch into all of its animation levels showing how it will be planned and constructed for the camera, it turns into a real nail-biter. On the opposite page, you can see the plan. The background level and the first level were straightforward, but levels 2, 3, 4, and 5 were all pieces of a birdcage model shot as live action. From the resulting film, two sets of registered prints were made that were duplicates of each other, but one set of prints had to be altered by hand for level 5. That is, the water cup had to be traced off onto its own level to be called level 2, while for level 4, the water cup

had to be cut out with an x-acto knife. Still showing between the front bars on the level 4 prints would, of course, be the back of the cage as shown in level 1. This was simply eliminated using white-out before copying level 4 onto cels. Fun, huh? Nowadays, this sort of matting out can be so easily done in the computer. Note that level 4 acts as both an overlay on top of the animation (levels 2 and 3) and as an underlay working under levels 5 and 6.







Okay, now that I've taken time to detail a simple production problem, here's a word of caution. When you board a scene, keep your mind free and clear of all distractions. The mechanical complexity of your movie can be dealt with later. Don't think about it in the storyboard stage. Concentrate solely on the spirit and rhythm of the piece as well as the flow of your emotional colors.

Avoid worrying about costs at this point. Such discussions will give you the jitters, and you'll begin to edit your creative flow before you get it drawn.



# MECHANICS

## MAKING NOTES

### Continuity Notes

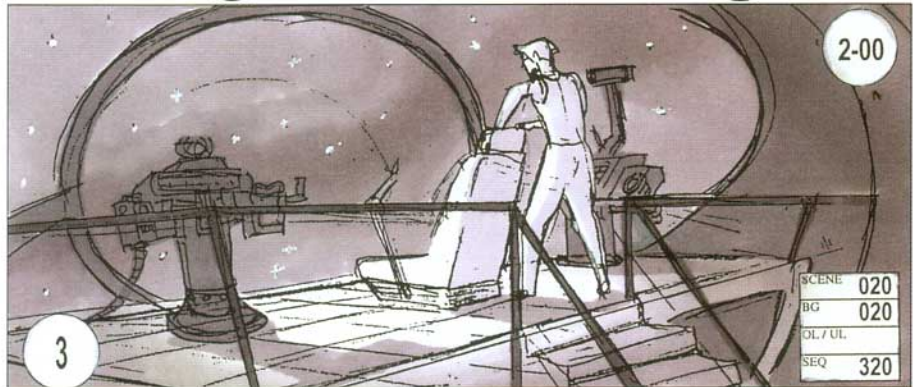
Interior. Valkyrie. KORSO'S Captain's Bridge.  
Wideshot. Angle on CALE. He reaches the top of the stairs of KORSO'S bridge. He moves over towards KORSO'S Captain's chair. The camera follows. He looks around to see if anyone is watching, then sits down in the chair.

### Director's Notes

LYT/BG 020 25F set-up. 25F with animated BG elements.

3D: Provide animated Captain's Bridge and chair. Provide deep space BG with animated streak stars.

LIVE ACTION STATS FOR: CALE.  
Hook-up position of CALE to scene 010.  
Hook-up position of CALE and the 3D chair to scene 030.



Let us suppose for a moment that you are the director of a staff of 350 artisans working on an animated feature. As a single scene moves throughout the thirty departments of the animation studio, each department supervisor will want to know how to progress the scene further. They all get their marching orders from the director of the movie in the form of notes. For years, I have watched my partner, Gary Goldman, sitting in front of the computer monitor tirelessly studying the status of each scene while writing instructions to specific members of the staff. On the following page we've included a sample of one of his director's notes for Scene 10 of Sequence 320 in *Titan A.E.*









# MECHANICS



## THE ANIMATIC

Way back in time, when we used to work with actual film in the production process, the shooting of the story sketches in continuity was what we called "making a story-reel." Working with film has always been laborious and time-consuming. Film is slow to develop in the lab and even slower to edit in the edit room. The film dailies must be physically cut and then spliced together to their adjacent scenes. It is an exhausting chore. The computer, however, has streamlined this tedious and ponderous process to a faster, more efficient approach.

The term "story-reel" is now outdated. A brilliant new system has taken its place. I'm speaking of the "animatic." What a welcome relief! Computer

edits are now so much easier. Add a few frames here, take out a few frames there, and voilà, your little story sketches begin to show the first signs of becoming a real movie. If you don't like your first toss at timing, no sweat; you can easily re-edit it again and again until you get it right. This is where the wise, old saying comes in: "Timing is everything." In fact, my advice to you is to never animate a scene in your sequence until you fall madly in love with your timed animatic. Reader beware! Great story sketches are wonderful, but the landscape of movie making is usually a mine field. A movie deals with events happening in small parcels of time. Feel it as a fluid experience that is always changing. It is the antithesis of a



single sketch. When you storyboard, you should see a moving vision in your mind. That is what your sketches should represent. Now here is the real kicker. Try as you will, you will never be one-hundred percent accurate in your timing efforts at this stage. You will be trimming frames off this and that scene right up to your final color cut.

I remember an experience on *Titan A.E.* where Fox Animation Studios hired a very experienced editor to take a peek at our work. His assignment was to look at the film with a fresh eye and tighten it up where possible. I was amazed as I sat next to him and watched him take out one frame here and eight frames there that immediately changed the feeling of the action. This guy referred to his work as "removing the fat" and thus increasing the tension of the film. What a powerful lesson it was for me.

Below, you can see how the scenes are displayed on the computer before editing. The software we are currently using is called Avid. Because of its efficiency, you can now easily try several versions of your edit, then choose which one carries the strongest emotional impact.

Now let's discuss the "beats" again, a term frequently used in script writing and storyboarding. It has to do with timing. As I said earlier, musicians employ the same term. Music is metered out and delivered to the human ear in a beat pattern. Storytelling is a line-up of ideas or messages that is delivered to the audience in a beat pattern, either fast or slow.

*Don Bluth and Gary Goldman review edit choices for Bartok the Magnificent on the computer monitor.*





# BLOCKING



The word *blocking* may not be familiar to some of you. Blocking is a stage term but applies equally well to movies, too. Simply put, it is the business of plotting out the location on stage where the actors will move as they deliver their lines. This must be thought out carefully and rehearsed in your head or you risk confusing your audience. In the following pages, study the blocking that accompanies the lines of dialogue.



# ALL DOGS GO TO HEAVEN



*This is the establishing shot. It tells the audience where the action takes place and what time of day it is. Since this is Charlie's home, it also speaks volumes about him. We hear music from the 1930s.*



**CHARLIE (OFF-SCREEN):** THIS SHERR-OFF IS A REAL BIMBO. WHAT SAY WE KNOCK HIM OFF AND TAKE THE GOLD...



**CHARLIE:** ...NOT FOR OURSELVES, BUT WE'LL GIVE IT TO THE POOR SUCKERS WHO...

Charlie is a con man. He's always in a scheme to make quick money. At this point in our story, we know that he sees Anne Marie as his ticket to fame and fortune. Her rare ability to communicate with animals makes it possible for her to predict the outcome of any race. Charlie and his sidekick, Itchy, hope to win the sweepstakes at the racetrack, but to control the little girl, Charlie must sweet-talk her into believing that he truly cares for her. He tells her that he will find her a home. It's all a pack of lies but presents a great situation for comedy as he bumbles his way through the reading of a bedtime story. Later, he grows increasingly frustrated in his attempt to get her to shut up and go to sleep.

This scene evolves through the characters Charlie, Itchy, and Anne Marie. The character dynamic between Charlie and Itchy is strained from the top of the scene. Itchy has a conscience. He is guilt-ridden about the con game with the young girl and longs to return to normal business. But Charlie is a smooth talker and handles his buddy's objections by promising him untold wealth, all the while convincing Anne Marie that he is her best friend. What becomes obvious in this scene is that Charlie is in over his head. What is subtly being conveyed here is that Anne Marie is very much in charge of the relationship. Carefully examine this series of sketches. What the characters are saying in the scene is the text, but the subtext is more powerful. And what would that subtext be? It's simple! For all his conning and big talk, Charlie is really a softy inside.

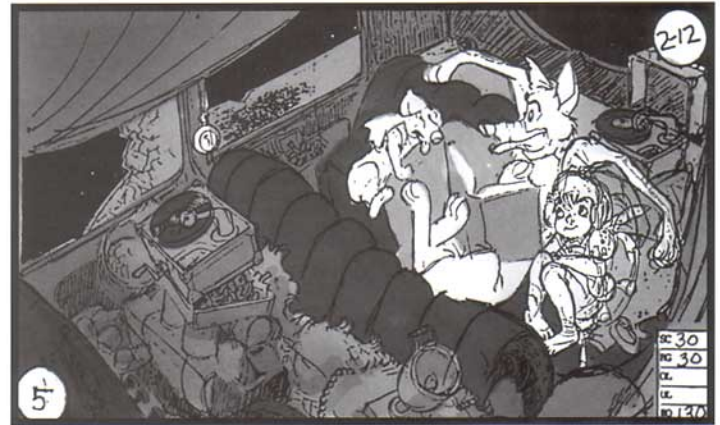


# BLOCKING



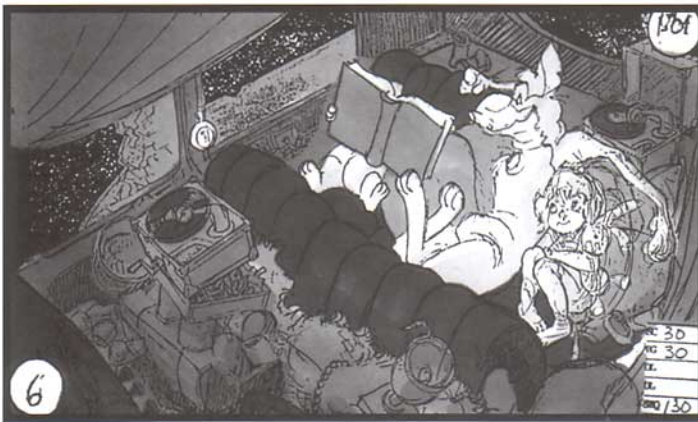
**CHARLIE:** ...WHO GOT TOOK IN THE FIRST PLACE.

*This is a wide shot. It reveals the front and back seat of the car with all of its junk.*



**ITCHY:** WHERE DO YOU GET THIS STUFF?

*Itchy hates the story of Robin Hood...*



**ITCHY GRABS THE BOOK.**

*...because it flies in the face of his own life as a thief.*



**ITCHY:** WHAT KIND OF HOOD IS THIS? GIVIN' DOUGH TO THE POOR WITHOUT TAKIN' HIS CUT.



**ANNE MARIE:** I LIKE THIS STORY, MR. ITCHY!  
**ITCHY:** YOU WOULD.



**CHARLIE:** SHUT UP! I'M TRYING TO GET THE LITTLE BRAT TO SLEEP... DO YOU MIND?

**NOTE:** The focus is on Itchy, so he is placed closest to the camera.





CHARLIE: WELL... THEN A...A...



CHARLIE: GIVE ME THAT.

NOTE: The position of the characters must hide Charlie & Itchy's "asides" to each other.



CHARLIE: SO ALL THE POOR PEOPLE WAS HAPPY 'CAUSE THEY WASN'T SO POOR NOW.

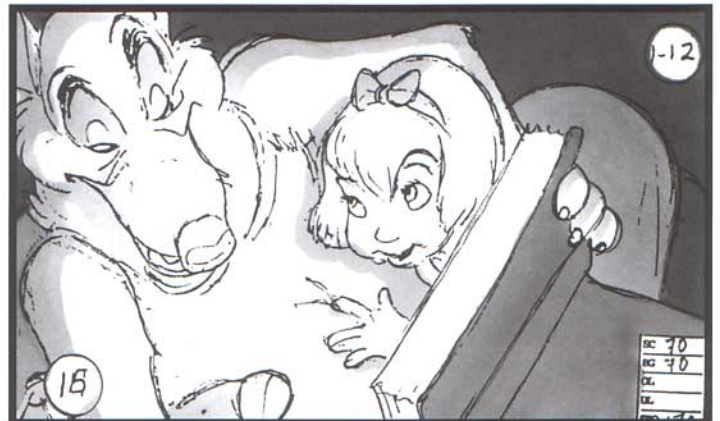


ITCHY: YEAH, BUT THIS HOOD GUY'S OUT 50%.  
CHARLIE: SO WHAT, HIS DOLL LOVED HIM ALL THE MORE.

NOTE: Since the book is sideways, it should be obvious that none of the three characters can read.



ANNE MARIE: WAS SHE PRETTY?



CHARLIE: (LAUGHS)

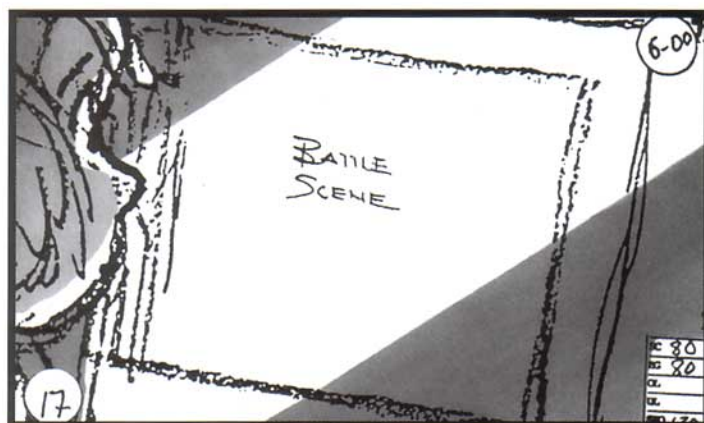
NOTE: Close-up allows for the growing bond between Charlie and Anne Marie to be seen.



# BLOCKING



CHARLIE: SHE WAS TO DIE FOR.



NOTE: Sketch 17 makes it clear that Anne Marie is buying Charlie's story. The picture is a backup.



CHARLIE (OFF-SCREEN): BUT THE WHOLE...



CHARLIE: ...GANG WONDERED..

NOTE: This cut to Itchy reveals his increased frustration, setting up his exit. He's not on board with the con.



CHARLIE: WOULD MAID MARION MARRY HIM?



CHARLIE: AND... (FLIPS BOOK TO END)

NOTE: Now even Charlie grows impatient and pitches the book. He's tired of baby-sitting.





CHARLIE: (THROWS BOOK) ...SHE DID!



CHARLIE: (STRAINS TO LIFT ANNE MARIE)

NOTE: In these six panels, Charlie dumps the kid in the front seat...



CHARLIE: NOW GO TO SLEEP, EH.



CHARLIE: MR. ITCHY AND I, WE...WE GOTTA TALK SOME...

...throws a blanket at her, and puts up a wall between them.



CHARLIE: ...BUSINESS.





# BLOCKING



ANNE MARIE: GOOD NIGHT, MR. ITCHY!



ITCHY (OFF-SCREEN): GOOD NIGHT.

Anne Marie is accommodating Charlie's whims, but...



ITCHY (OFF-SCREEN): I DON'T LIKE THIS. WE'RE SITTIN' READIN' FAIRY TALES...

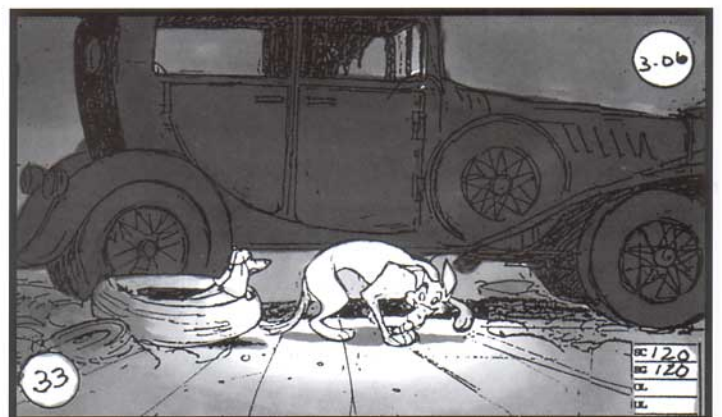


ITCHY (OFF-SCREEN): ...TO A TIME BOMB. LIKE SHE WAS BO PEEP. AT LEAST...

...we set up her discomfort in that junky front seat.



ITCHY: ...WE COULD HAVE STASHED HER AT THE OLD CHURCH.



CHARLIE: (LAUGHS) WOULD YOU RELAX?

NOTE: Establishing shot: Just outside the car, Itchy hunting for a place to bed down for the night.





**CHARLIE:** CARFACE AIN'T GONNA LOOK FOR HER HERE.



**CHARLIE:** HE THINKS I'M DEAD, REMEMBER!

NOTE: The focus is on Charlie's plan, so I chose a three-quarter front-on shot of Charlie.



**CHARLIE:** (LAUGHS)



**CHARLIE:** NOW! GET SOME SLEEP, PAL.

Note that Itchy has zero resistance. He is literally...



**CHARLIE:** TOMORROW WE TAKE THIS LITTLE TIME BOMB TO THE HORSE TRACK AND WE MAKE OURSELVES A FORTUNE.



**ANNE MARIE (OFF-SCREEN):** HORSIES?

...pinned down into a silent agreement. Anne Marie's (off-screen) voice ends the moment.



# BLOCKING



CHARLIE: NOW LOOK WHAT YOU'VE DONE.

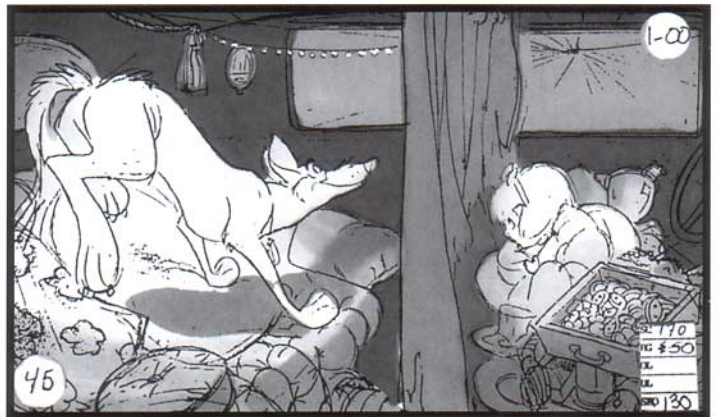
Anne Marie has been listening. Charlie blames Itchy.



CHARLIE: EIGHT O'CLOCK.



Charlie's real challenge is the girl. He has no experience with kids, as you will see.



ANNE MARIE: CHARLIE, I NEED A PILLOW.

He hops in the back seat thinking all is well.





This shot is staged to show Charlie's soft, comfy bed & Anne Marie's junky, uncomfortable bed.



CHARLIE THROWS HER A PILLOW.

CHARLIE: HERE!! NOW GO TO SLEEP!



ANNE MARIE: CHARLIE, WOULD YOU PLEASE TUCK ME IN? PLEASE!



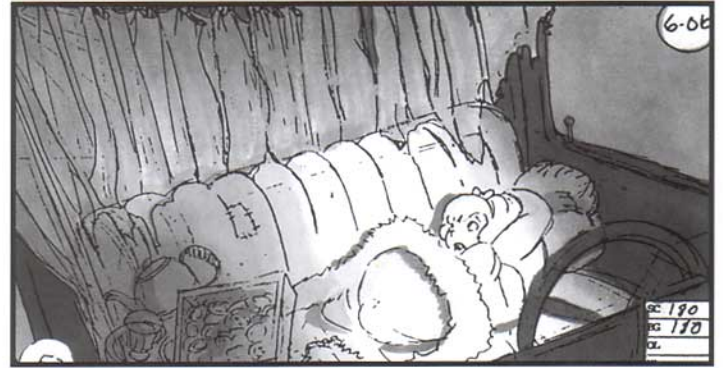
CHARLIE (OFF-SCREEN): HEH, HEH, HEH...



CHARLIE: ...YEAH.



# BLOCKING



ANNE MARIE: WOULD YOU KISS ME GOOD NIGHT?



CHARLIE: WHAT!! OOOH... SURE.



CHARLIE KISSES ANNE MARIE.



Poor Charlie is pushed to the limits of his patience. Kissing Anne Marie is also a funny bit of business, since it's usually we humans who object to the wet nose of a dog.

It is also good comedy that he spits and wipes the kiss off. But wait, the little girl is not ready to sleep yet. The conflict soon continues...



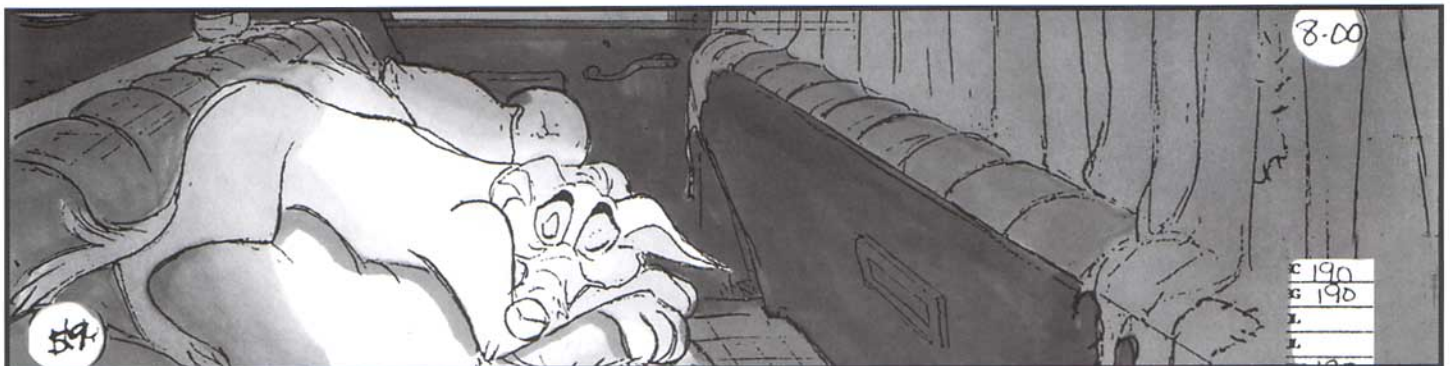




ANNE MARIE (OFF-SCREEN): THANK YOU FOR RESCUING ME.



CHARLIE: YAH... WELL, SURE THAT WAS A... THAT WAS NOTHIN', KID.

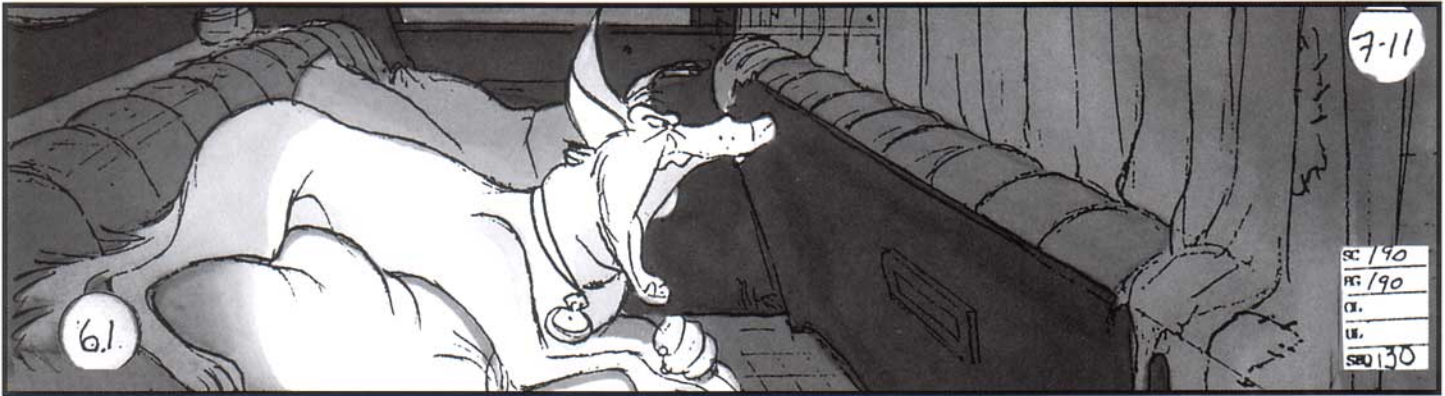


CHARLIE: (SIGH) (BREATHES) (SNORE)  
ANNE MARIE (SFX) (OFF-SCREEN) IS MAKING SQUEAKING SOUNDS.





# BLOCKING



CHARLIE: HEY SQUEAKER. KNOCK IT OFF.  
ANNE MARIE (OFF-SCREEN): I'M...



ANNE MARIE: ...SORRY. (RATTLES DISHES)

Out of patience, Charlie finally snaps at the girl and orders her to be quiet. But at this point, we should begin to suspect that he will lose to her.



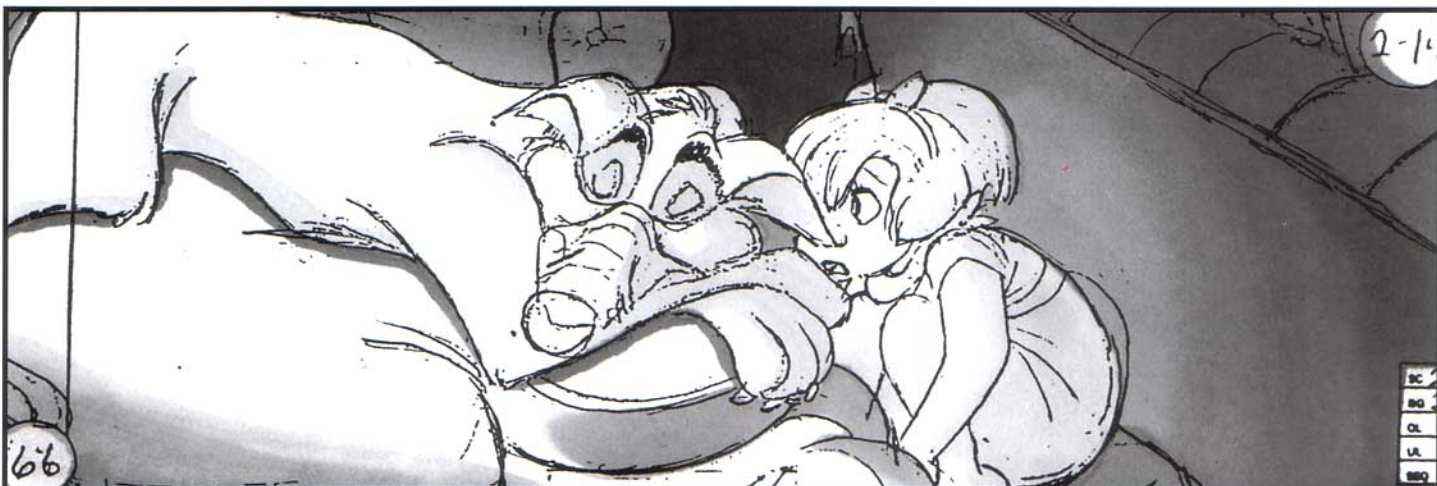
NOTE: Here, we see momentary triumph, but short-lived.  
Notice I've kept the camera on Charlie, being careful...





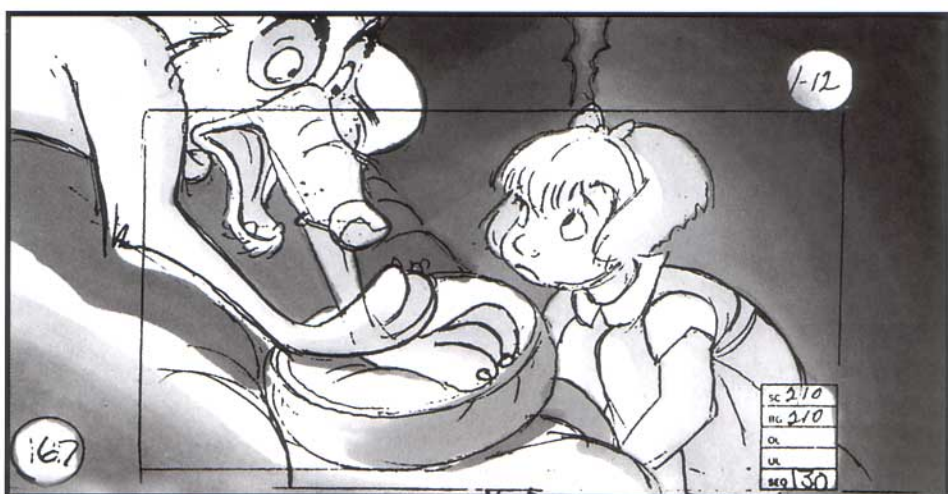


...not to reveal to the audience that Anne Marie is crawling into the back seat until...



ANNE MARIE (WHISPERS): CHARLIE.

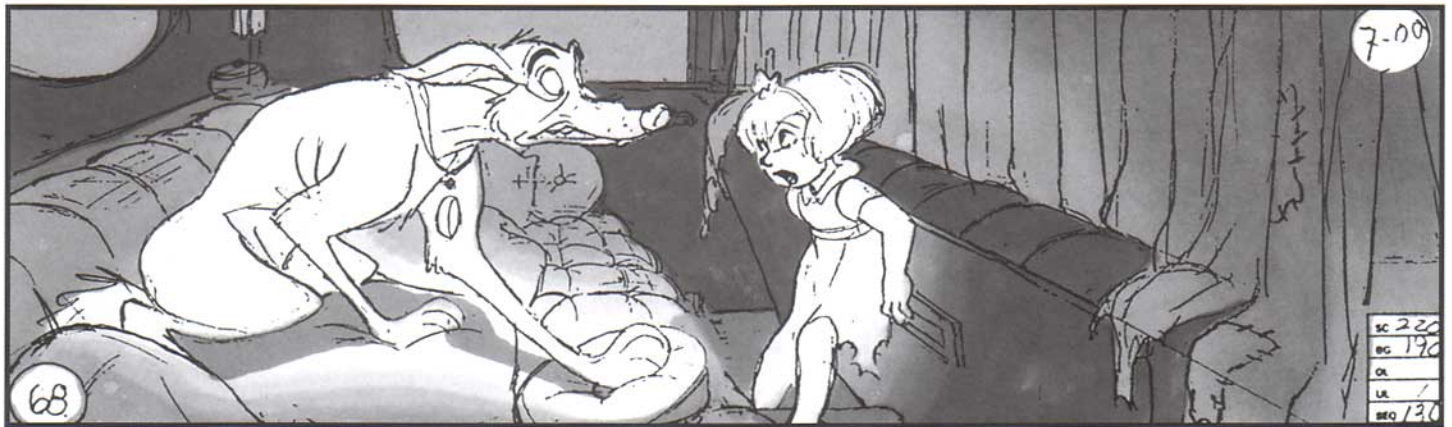
...she is there in his face. It takes him by surprise.



CHARLIE: (YELPS IN SURPRISE)



# BLOCKING



ANNE MARIE: CHARLIE, YOUR FRONT SEAT HURTS ME.  
CHARLIE: OH YEAH!

NOTE: This moment requires a two-shot as Charlie, totally defeated...



CHARLIE: ALRIGHT, ALRIGHT.

...changes places with Anne Marie. She finally wins.



CHARLIE: ALRIGHT! DAMES!!!

She gets the comfortable bed and he gets the rollaway.





ANNE MARIE: THANK YOU, CHARLIE.  
CHARLIE: UH-HUH!

The fun in this moment is we think it's finally over. She will now sleep. Guess again.



CHARLIE: NOW A...NOW GO TO SLEEP, HUH?



ANNE MARIE: (CHARLIE SETTLES) DEAR GOD.

Oops. She's saying nightly prayers. Why is this so comedic? Well, Charlie's on...



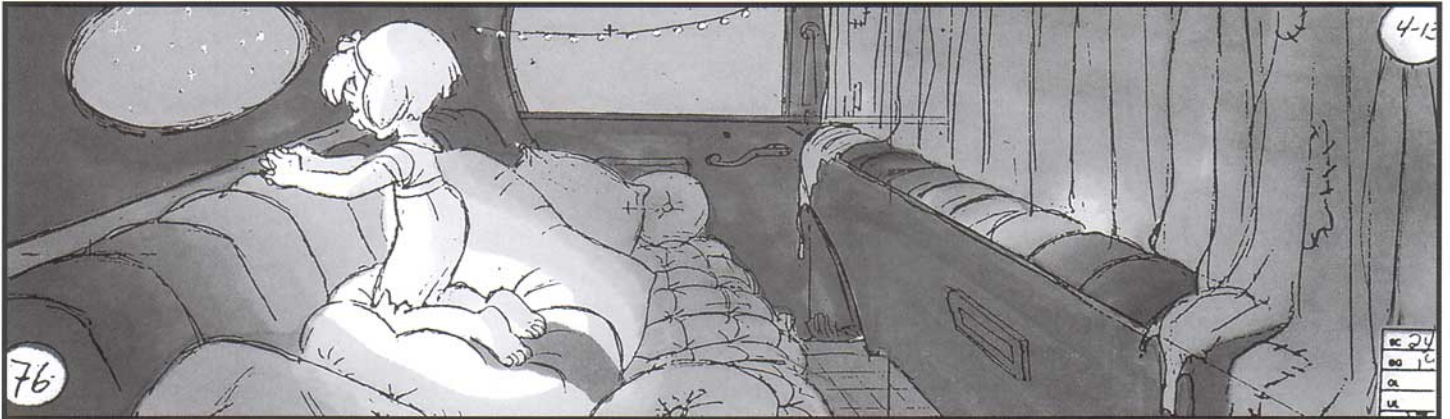
CHARLIE: OH NO!  
ANNE MARIE: THANK YOU SO MUCH FOR MY NEW BEST FRIEND CHARLIE...AND...



...the lam from heaven and is determined that the guys upstairs not know of his whereabouts.



# BLOCKING



ANNE MARIE: ...THANK YOU FOR SENDING HIM TO RESCUE ME.  
CHARLIE: PSSSST.

Worse yet, the girl's giving out his name.



CHARLIE: HEY.  
ANNE MARIE: AND GOD BLESS MR. ITCHY.

Charlie panics, but he's powerless to stop the proceedings.



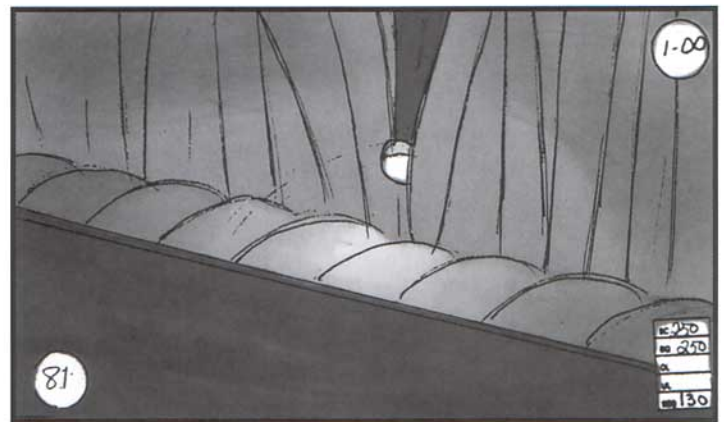
CHARLIE: ...YEAH, BLESS ITCHY.  
ANNE MARIE: AND GOD BLESS CHARLIE, AMEN.





ANNE MARIE: OH! AND PLEASE HELP ME FIND A MOMMY AND DADDY.

Finally she ends the prayer. Charlie waits for the lightning bolts.



CHARLIE: (GROANS) (SIGHS)

At last she'll sleep...maybe...but then, a final question...



ANNE MARIE: CHARLIE.  
CHARLIE: WHAT!



# BLOCKING



ANNE MARIE: DO YOU THINK YOU COULD HELP ME FIND A MOMMY AND DADDY?

CHARLIE: KID...

Charlie's patience is growing thin, but it's a long way from over.



CHARLIE: ...I'LL HELP YOU FIND THE...



CHARLIE: ...LOST CITY OF ATLANTIS.

In fact, Ann Marie will drive him to the edge before the scene ends.



CHARLIE: JUST PLEASE GO TO SLEEP.  
ANNE MARIE: CHARLIE...

CHARLIE: WHAT?  
ANNE MARIE: I HAVE TO GO TO THE BATHROOM.





When each of your scenes finally arrives in color, you will either be thrilled or disappointed. Great color will not disguise bad acting or weak business. Thoughtfully examine the dynamics going on between your characters. The conflict that exists between them is where the entertainment is. What the characters or actors are doing while they say their lines is very often more entertaining than the lines themselves.



# FOCAL POINT



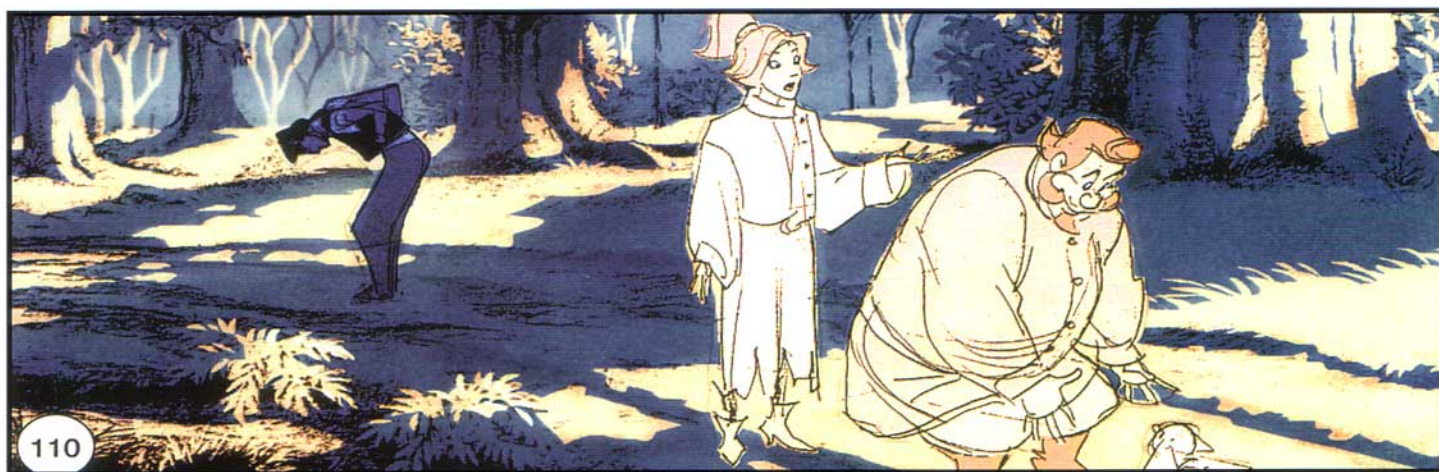


# FINAL BOARDS: LIGHTING FOR FOCUS

Although we have already covered the principle of lighting your drawings to establish the focal point, I found these sketches in our archives and I couldn't resist including them. *Anastasia* was a huge challenge in that it was filmed in CinemaScope and produced in a realistic style with myriads of detail. As you sit in front of a forty-foot-wide movie screen, you can easily get lost in the luminous panorama before you and not pick up plot information fast enough to track the story. After the storyboards have been timed and shot as an animatic, the sketches will start to work together as a movie.

At this juncture, it's feasible to select a few panels that represent the whole board and tackle the job of the cinematographer, the artist who lights

the set in live-action films. Lighting will establish the mood, the focus, the tone, and the beauty of the scene, all elements that will indicate how you should spend the money animating the characters and the effects. For example, in Sketch 110, more care should be employed in the drawing and acting of the two characters on the right, Anya and Vlad, who are the scene's focus and stand in the bright light, rather than with Dimitri, who is smaller in size and resides in the shadows. In this one sketch, the viewer will naturally watch Anya and Vlad. The action is focused by the light. Study the lighting keys on the next few pages, and see if you can put your finger on the exact point where the viewer should look.



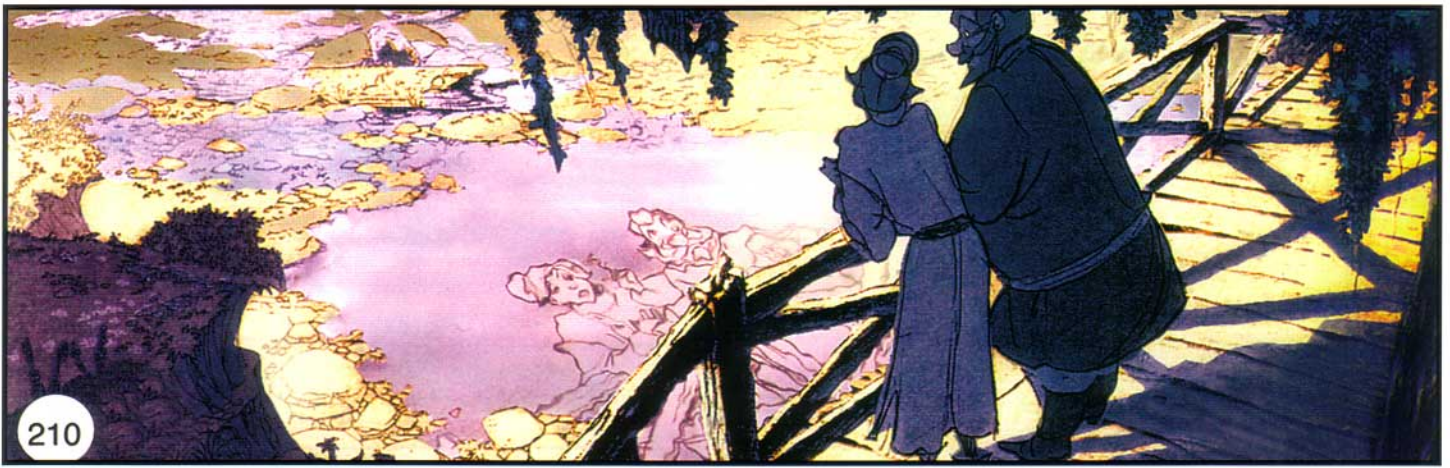
**PRIMARY LIGHT:** Bright spring sunshine through the trees and across the road. Dimitri keyed full while Anya remains in silhouette. Slight soft focus on the background as it recedes, with exception of secondary focal point of covered bridge.



# FOCAL POINT



**PRIMARY LIGHT:** Bright spring sunshine through trees and across road. Dimitri and Anya are rim-lit from (off-screen) upper right with Anya receiving the key light.



**PRIMARY LIGHT:** Sunlight from (off-screen) upper right placing Anya and Vlad into dark silhouette against light reflection in water below. Perspective is cheated to create the reflection.



**PRIMARY LIGHT:** Sunshine from (off-screen) upper right keys lower torsos of Anya and Vlad against railing.





**PRIMARY LIGHT:** Sunshine from (off-screen) upper right keys flower tossed by Anya.  
**SECONDARY LIGHT:** Cool fill light and agitated, refracted light pattern within river bed. As flower drifts out of frame, agitation subdues and image grows clearer.



**PRIMARY LIGHT:** Sunshine from (off-screen) upper right keys reflection of Anya, Vlad, and Pooka.  
**SECONDARY LIGHT:** Cool fill light and agitated, refracted light pattern within river bed. Image level of characters is sharp at this point.



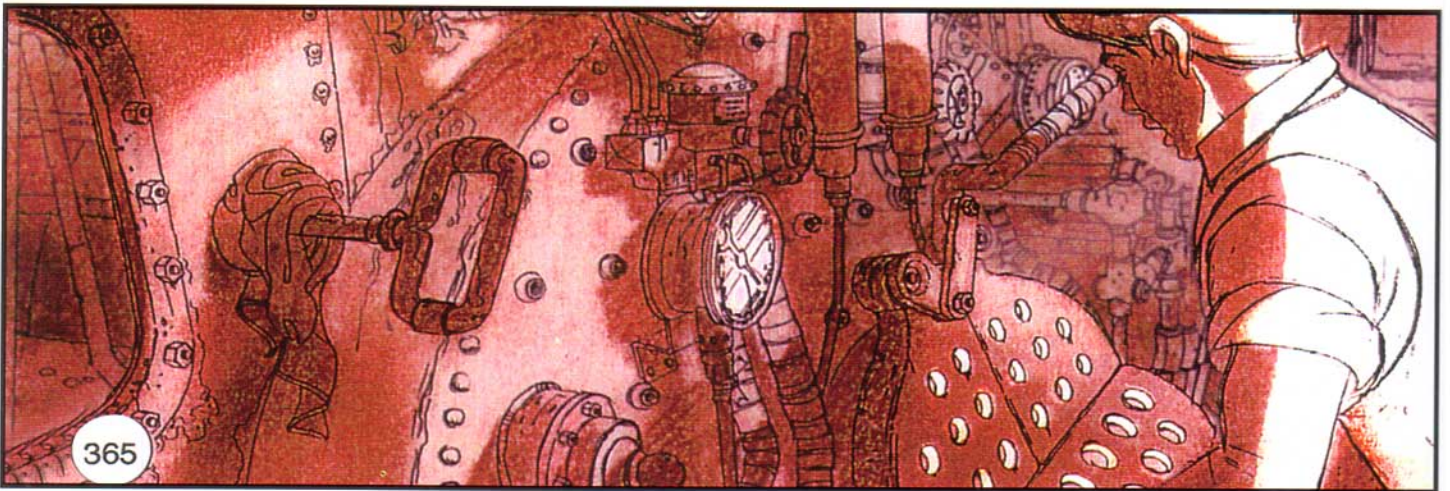
**PRIMARY LIGHT:** Sunshine from (off-screen) upper right keys lower torsos of Anya and Vlad against railing. **SECONDARY LIGHT:** Reflection of water from (off-screen) below frame.



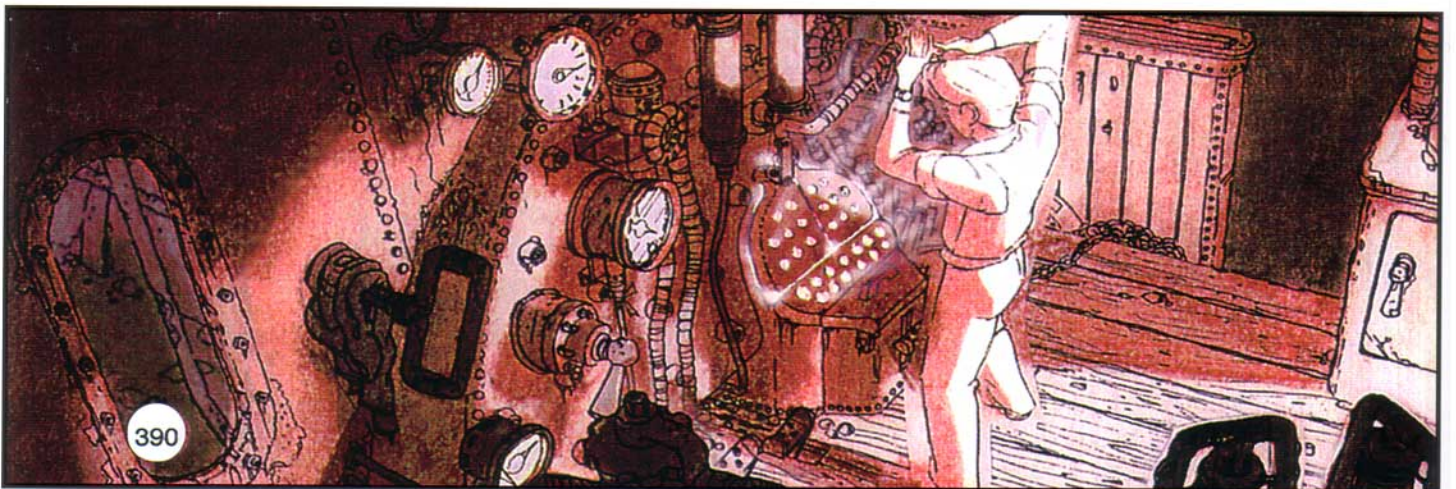
# FOCAL POINT



**PRIMARY LIGHT:** Reflected moonlight is keyed up onto Dimitri and Anya with Vlad, in shadows, behind them. **SECONDARY LIGHT:** Limited glow on underside of car from minions.



**PRIMARY LIGHT:** Engine-cab light from bulb located (off-screen) at right. Key on Dimitri's back. **SECONDARY LIGHT:** Fire-box holes are intensifying.

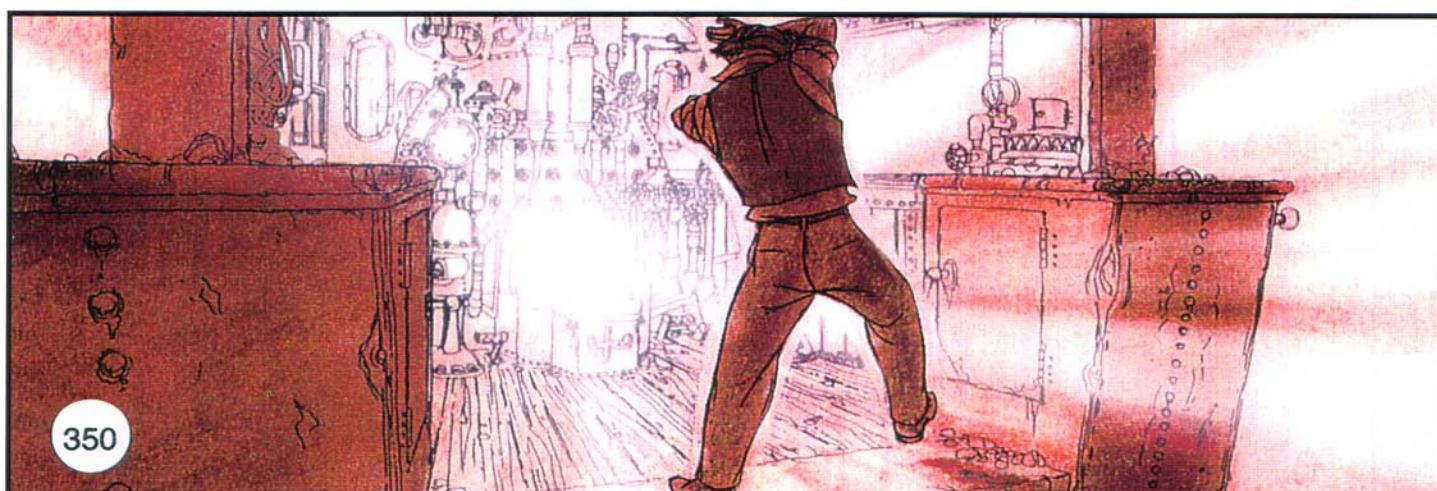


**PRIMARY LIGHT:** Engine-cab light from bulb located (off-screen) right. Key on Dimitri. **SECONDARY LIGHT:** Moonlight for fill and fire-box holes are intensifying and emitting beams.





**PRIMARY LIGHT:** Fire-box glow from below frame. Key on Dimitri.



**PRIMARY LIGHT:** Bright glow from under fire box temporarily blinds Dimitri.

**SECONDARY LIGHT:** Moonlight provides low-level fill on engine and Dimitri's backside.



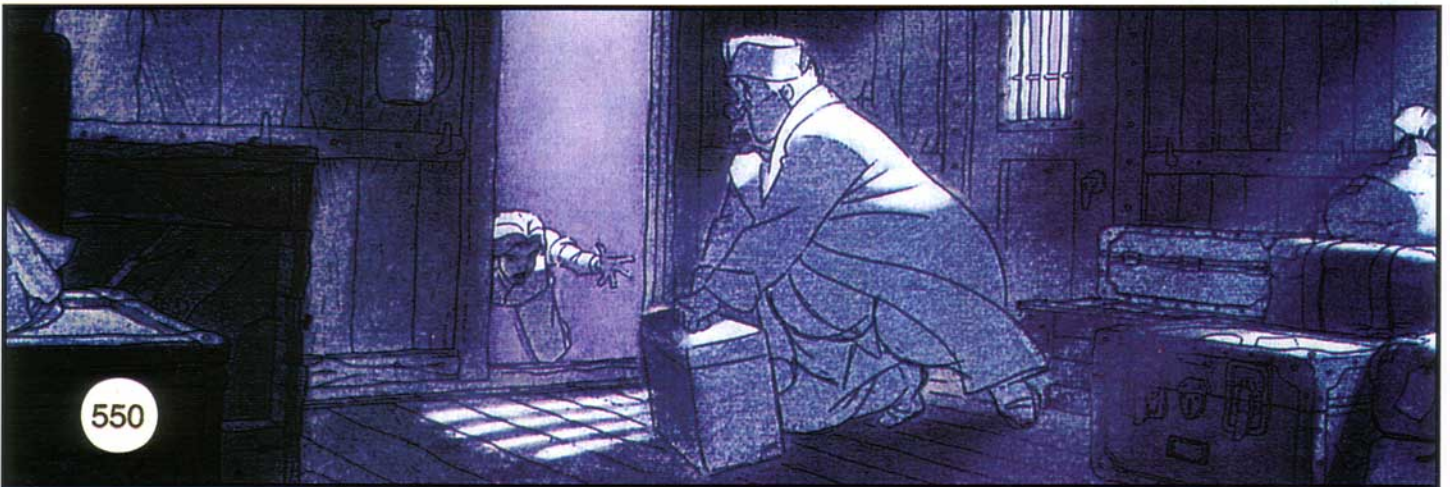
**PRIMARY LIGHT:** From (off-screen) engine, upper left. Key on Anya and Vlad from waist up. **SECONDARY LIGHT:** Moonlight could give soft fill on outside as well as low-level, soft areas inside baggage car.



# FOCAL POINT

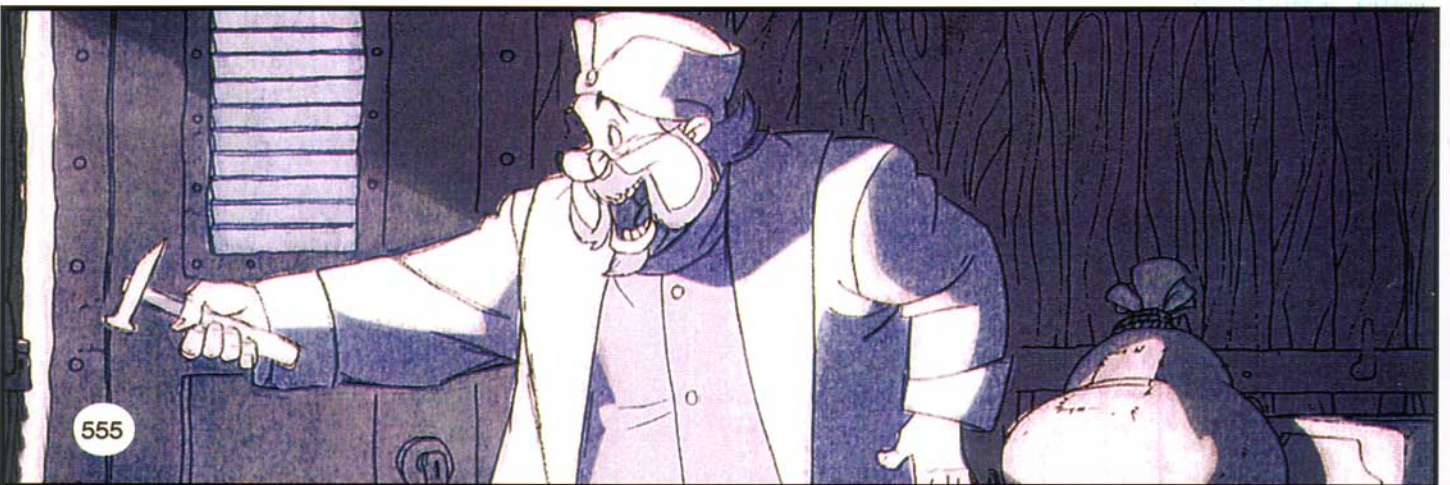


**PRIMARY LIGHT:** Glow from engine top-lights Dimitri.



**PRIMARY LIGHT:** Moonlight filters as rays through louvers into patterns on floor.

**SECONDARY LIGHT:** Glow from engine has increased and silhouettes Dimitri in doorway.



**PRIMARY LIGHT:** Vlad enters bright glow from engine located (off-stage) left.

**SECONDARY LIGHT:** Moonlight is slightly overwhelmed by the engine glow, except for fill.

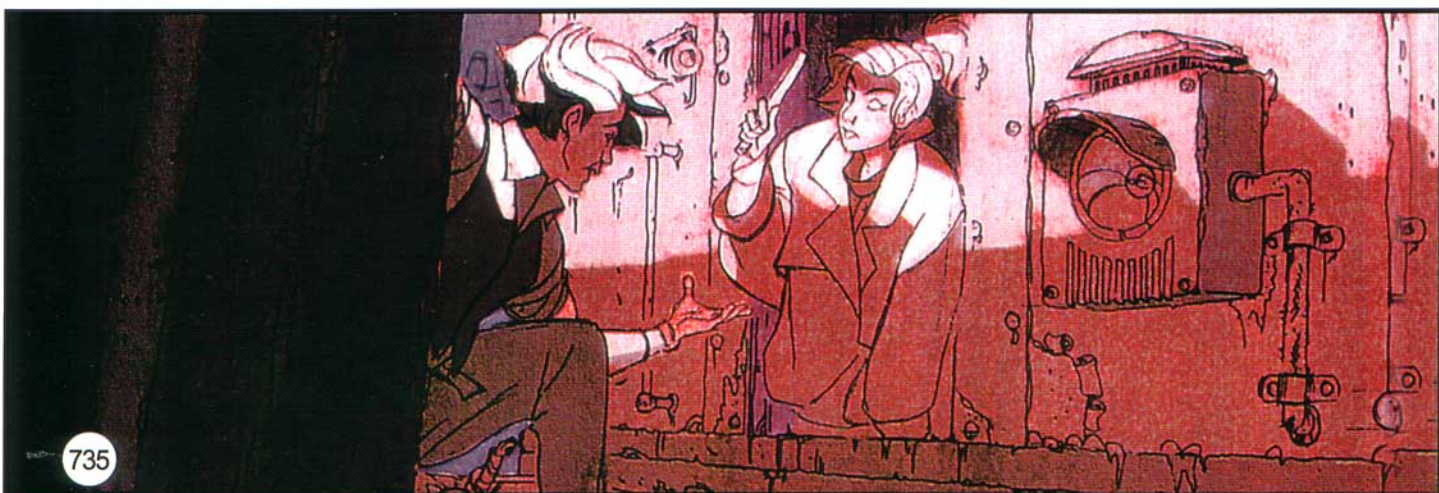




**615**  
**PRIMARY LIGHT:** Moonlight filtering through louvers as it keys Pooka and Anya. Warm accent on lettering for crate. Anya has a general dark-over-light effect for this long shot setup.



**623**  
**PRIMARY LIGHT:** Moonlight filtering through louvers as it keys Anya. As opposed to the previous scene, we (camera) are within the flaring glow of moonlight, so she appears generally light-over-dark.



**735**  
**PRIMARY LIGHT:** Bright glow from engine partially illuminates Anya and the ignited stick of dynamite in her hand. Balance of scene should be dark.



# CHOREOGRAPHY

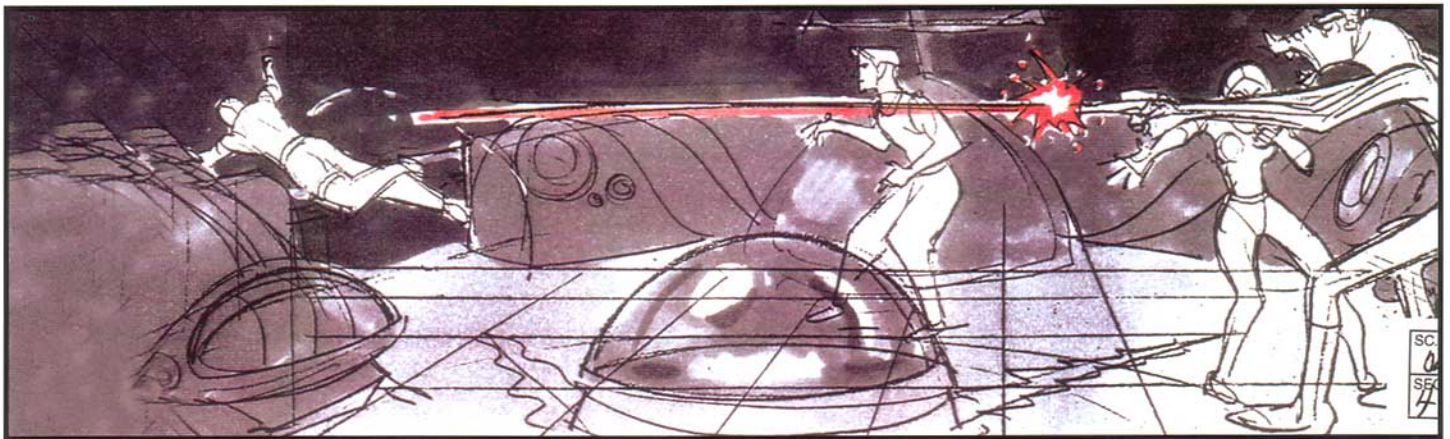
## TITAN A.E.

Someone once asked me what it was like to direct the sci-fi epic, *Titan A.E.* I'm still amazed that it turned out as well as it did, since science fiction was nowhere to be found in my bag of past experiences. In production, I felt somewhat ill-prepared to direct. I felt like the juggler in the circus who was asked to help out on the trapeze when one of the guys fell and broke his neck. Gary Goldman and I actually inherited the picture from another director who did not have a broken neck.

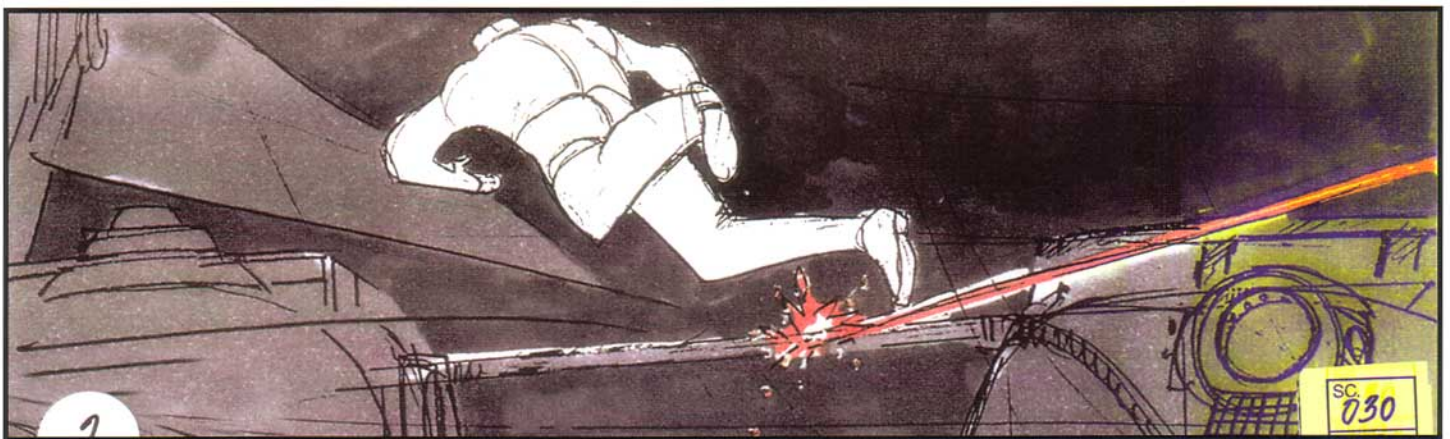
I've included this small section on *Titan* boards because the approach to the sketches was so unique. In live-action films, stuntmen are hired to execute the complicated moves of a fight sequence. In fact, nothing is left to chance. Each kick, tumble, and slug is choreographed like a dance. And so, when Preed the alien makes his move to kill Cale and Akima, we

knew the moves had to be believable. We immediately called in Hollywood stuntmen.

The next fourteen sketches were produced after the fight was choreographed and shot on videotape. Not only did I acknowledge my own lack of skill in staging a professional-looking fight in the boarding, I knew the animators would have the daunting task of pulling it off in movement. Even the fight sequence between Justin and Jenner from *The Secret of NIMH* was a creation of many live-action film clips, all edited to look like they belonged together. It was after the edit that the story sketches were drawn. Even boarding dance numbers should be approached in this manner. The idea is that something as complex as a fight or a dance sequence needs to be built on a solid foundation, one that helps prepare the way for the animation to succeed.



Preed shoots at Korso, who dives out of harm's way.



This shot proves that Preed missed.





Akima counters by knocking the gun from Preed's hand and...



...kicking him in the groin.



Preed grabs Akima by her hair and flings her to the floor.



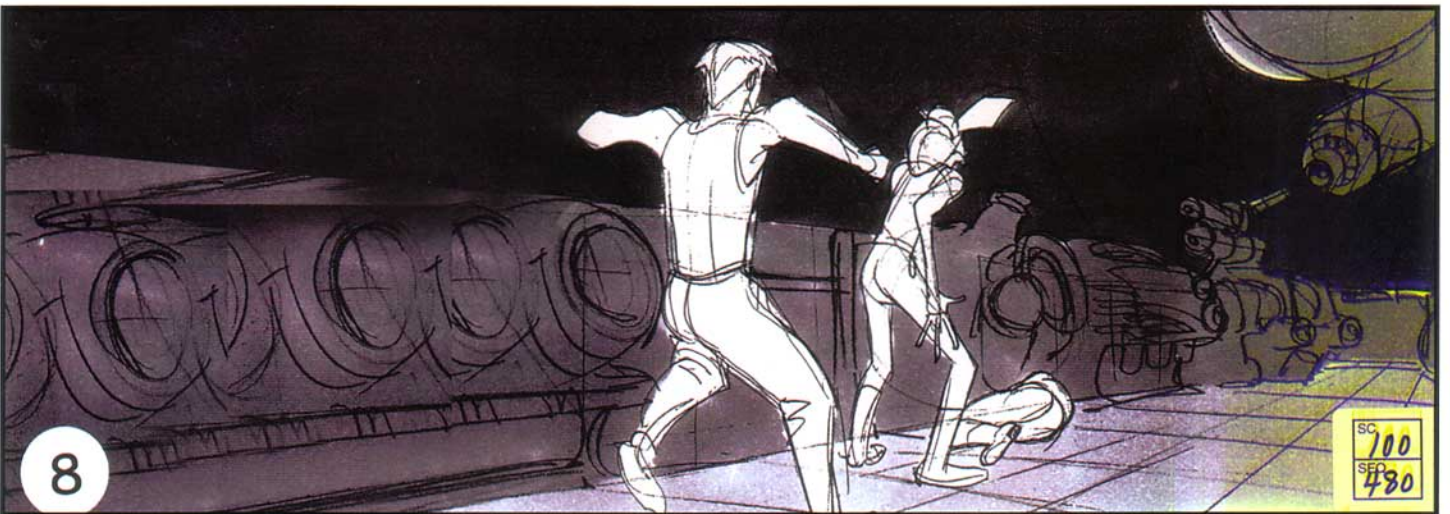
# CHOREOGRAPHY



While she is recovering...



...Cale rushes Preed from behind.



Here's the setup.





Cale leaps onto Preed's back but...



...gets an elbow in the belly and then...



...immediately a bash to his jaw. He goes down...



# CHOREOGRAPHY



...but counters with the heel of his boot to Preed's head.



Preed then grabs Cale by his shirt and slams his head...



...against the wall, knocking him out.





It is natural to believe that the larger the character is on screen, the more he/she demands the focus. In reality, the lighting is the deciding factor.



Whenever you create a two-character scene, remember that the focal point can only be on one character at a time. This is always a challenge for the choreographer and the animator.



Even in the most subtle acting scene, the face movement is like a dance to reveal the character's emotions.



# BOARDING A GAME

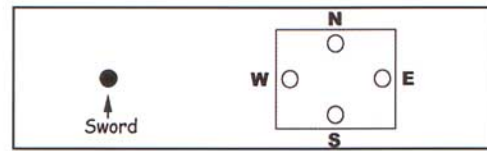




# DRAGON'S LAIR

Dirk is an accident waiting to happen. With his fumbling mannerisms, he is the least likely to succeed at anything, least of all navigating a booby-trapped castle. But he remains forever intriguing, because in spite of his handicaps, he never gives up. When her back is to the wall, Gussie Mouseheimer can always say, "Rewease the secwet weapon." Brisby's got her courage and the amulet. Anastasia has her royal heritage and her imagination. Poor Dirk, he ain't got nothing but bruises; the game beats him up!

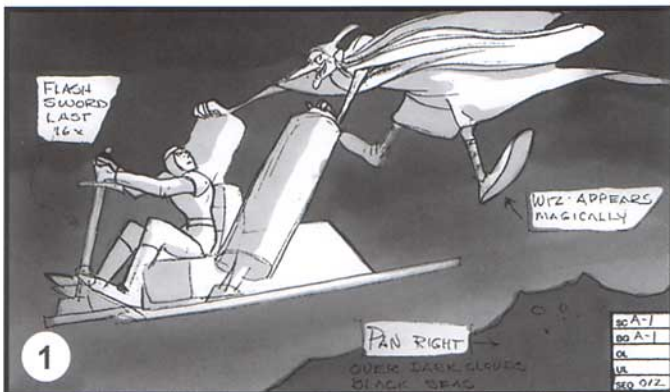
Boarding for a game, once again, pushed the envelope. After hemming and hawing and several false starts, I finally figured out a blueprint for it. I



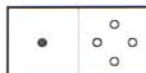
had to set up a threat for Dirk and then resolve it in the next sketch. Providing that the player makes the correct moves with the directional stick or pushes the sword button during the threat moments, he/she gets to watch the resolve moment where the threat is vanquished and a new threat appears.

In Sketch 1, the evil Mordrock appears behind Dirk (the first threat), and Dirk's sword flashes three times for a fraction of a second. If you quickly push the sword button, you get to watch Sc B-1 in which Dirk draws his sword. Then in Sketch 2 and 3, Mordrock threatens Dirk again by grabbing him by

1ST THREAT  
16X



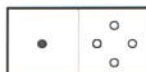
WIZ: HOW ABOUT



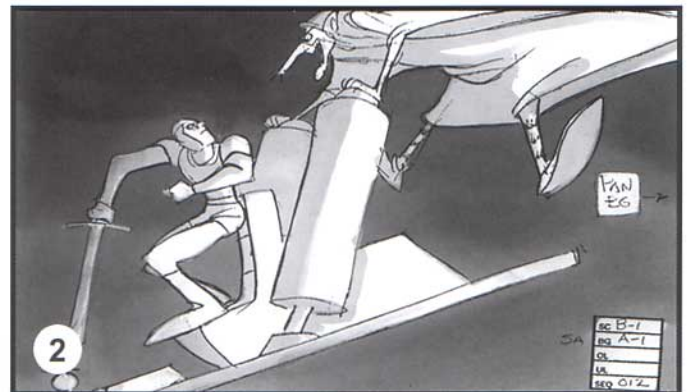
2ND THREAT  
16X



WIZ: GAME OF

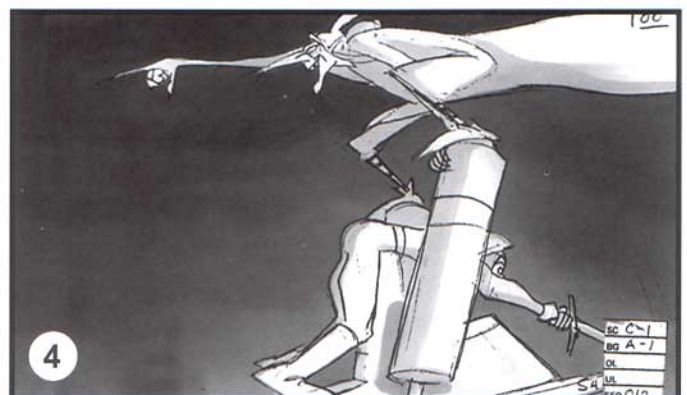


1ST  
RESOLVE



WIZ: A SMALL

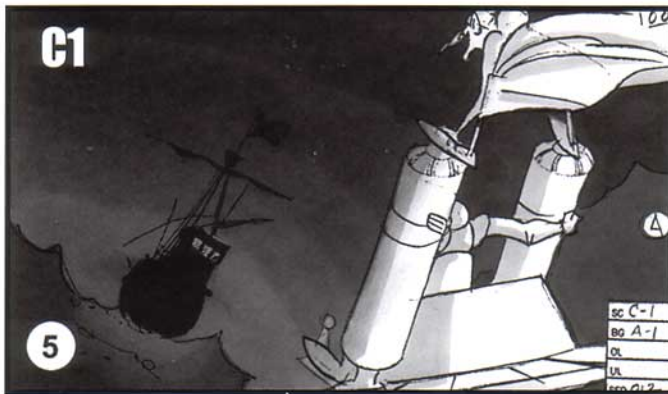
2ND  
RESOLVE



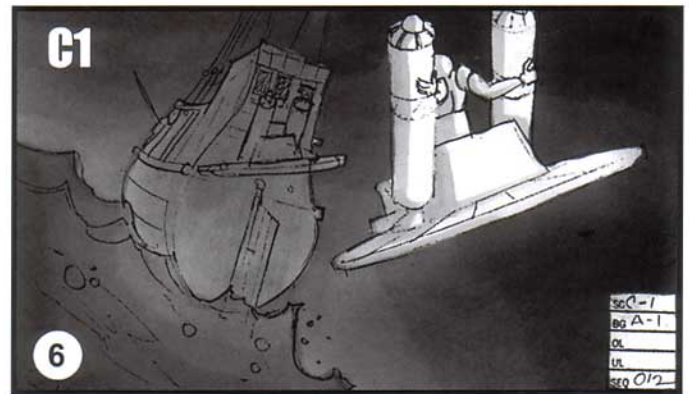
WIZ: PIRATES



# BOARDING A GAME



the neck. The sword again flashes three times for a fraction of a second. If you should be so lucky as to be capable of quickly pushing the sword button, you get to watch the resolve, Sc C-1. The next threat appears in Sketch 8 (Sc C-2), and so on. This



type of board is like writing music in counterpoint; employ entertaining visuals simultaneously with game play.

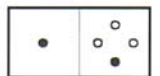
3RD THREAT  
16X



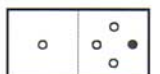
3RD  
RESOLVE



4TH THREAT  
16X

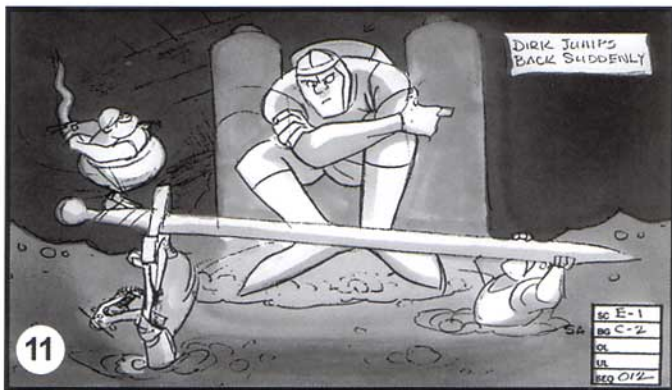


(MUSIC STARTS)

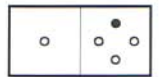
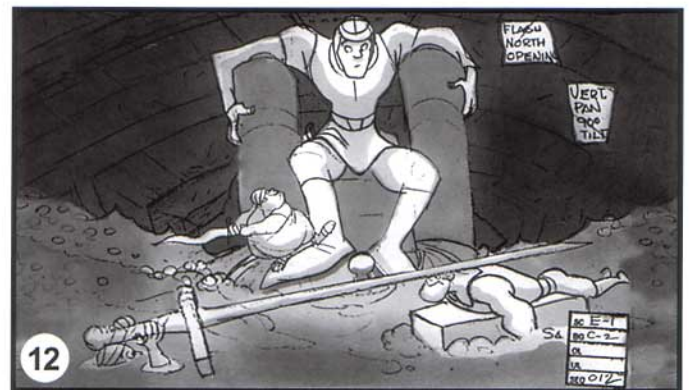




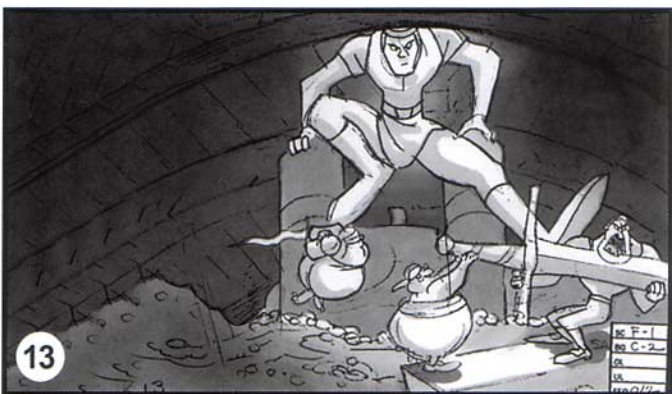
4TH  
RESOLVE



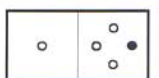
5TH THREAT  
16X



5TH  
RESOLVE



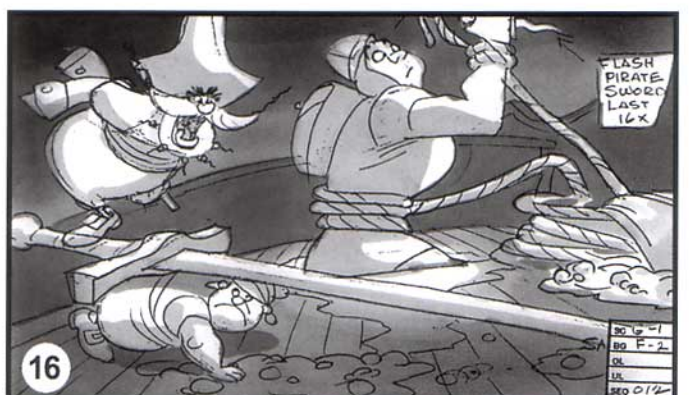
6TH THREAT  
16X



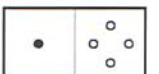
6TH  
RESOLVE



7TH THREAT  
16X



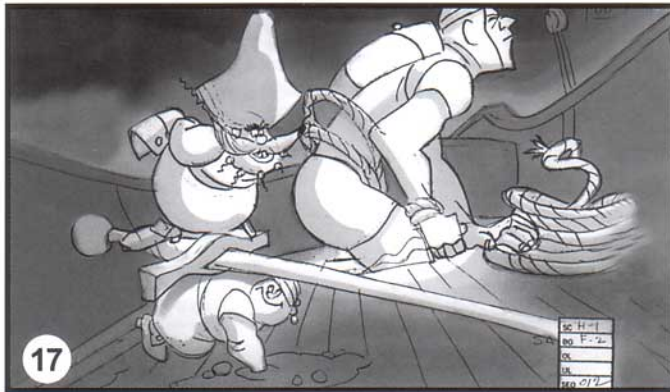
BLACK: BLIMEY



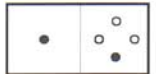


# BOARDING A GAME

7TH  
RESOLVE



8TH THREAT  
16X

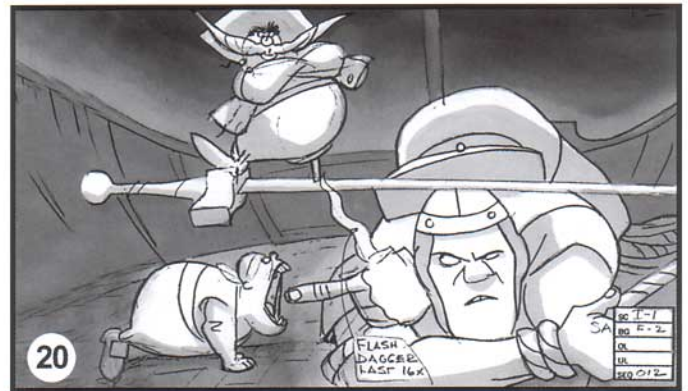


8TH  
RESOLVE

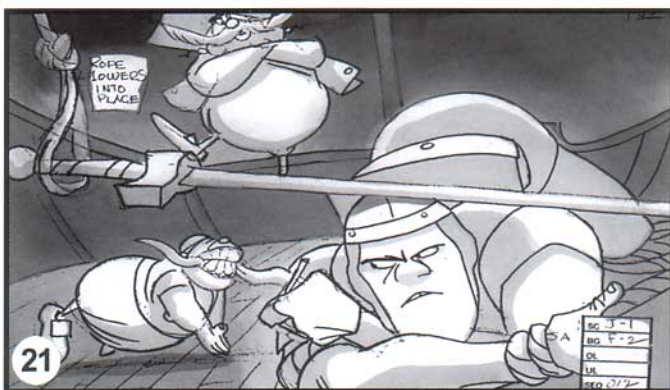


BLACK: (EVIL LAUGH)

9TH THREAT  
16X



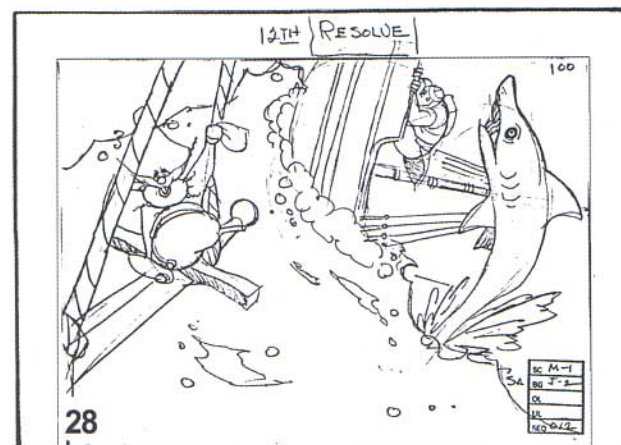
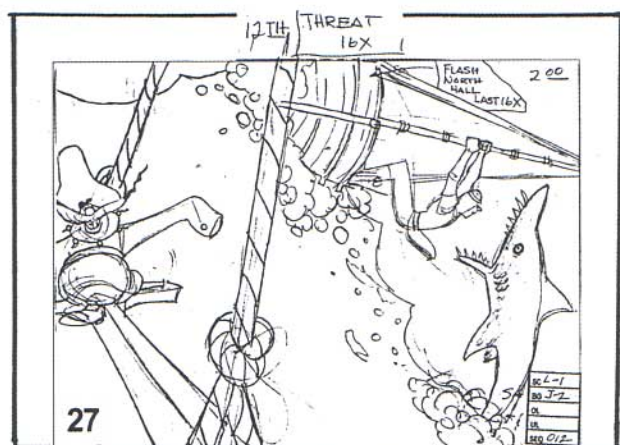
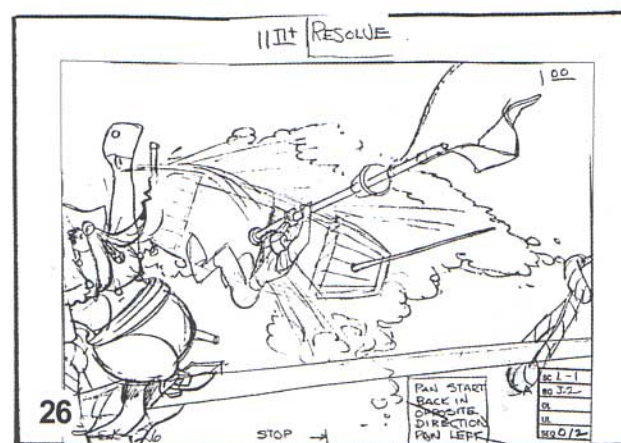
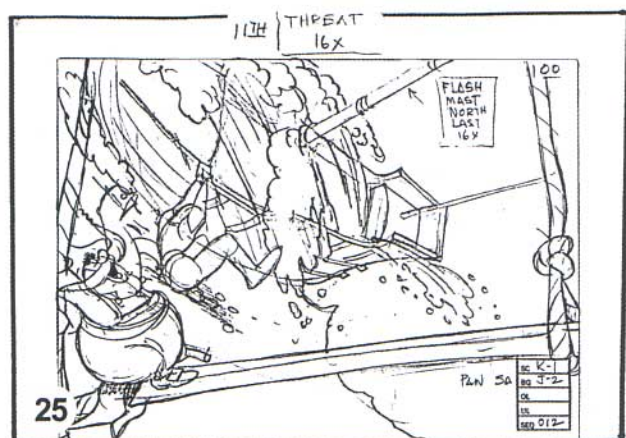
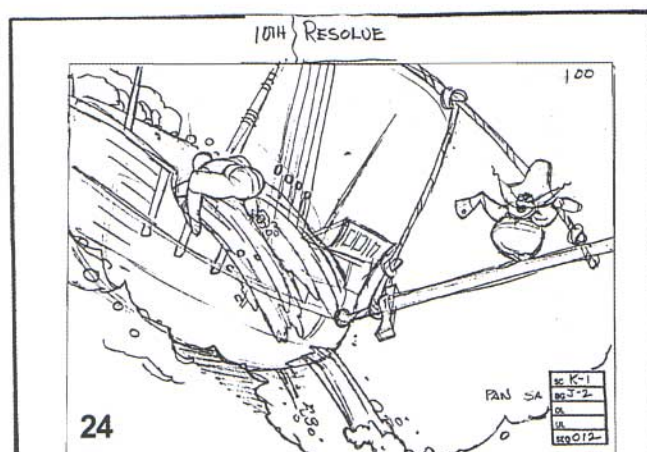
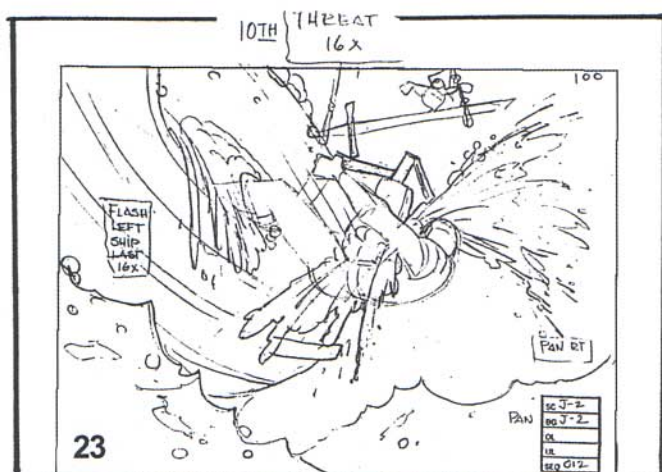
9TH  
RESOLVE



BLACK: LOOK







BLACK: I COULD BE THE

BLACK: KING OF THE SEA...

To avoid giving the impression that story sketches just happen clean and shaded, I've included six very rough sketches furthering the game-play of *Dragon's Lair: The Pirate King*. These rough drawings are usually pinned on a storyboard and discussed with several other artists. It is only when the action is approved that they are cleaned up and colored.



# COLOR KEYS



**I**n much the same way that we've selected representative sketches of a sequence to make lighting guides (see page 85), color keys are the real defining moment for the entire production staff. You can see why. These small paintings point the way to the look of the final

film. The background department and the animation-effects department find them indispensable in doing their job and often study them for hours. The raindrops, the sparkles, the shadows (these are from *The Land Before Time*, 1988), and all the minutiae of nature must be created.



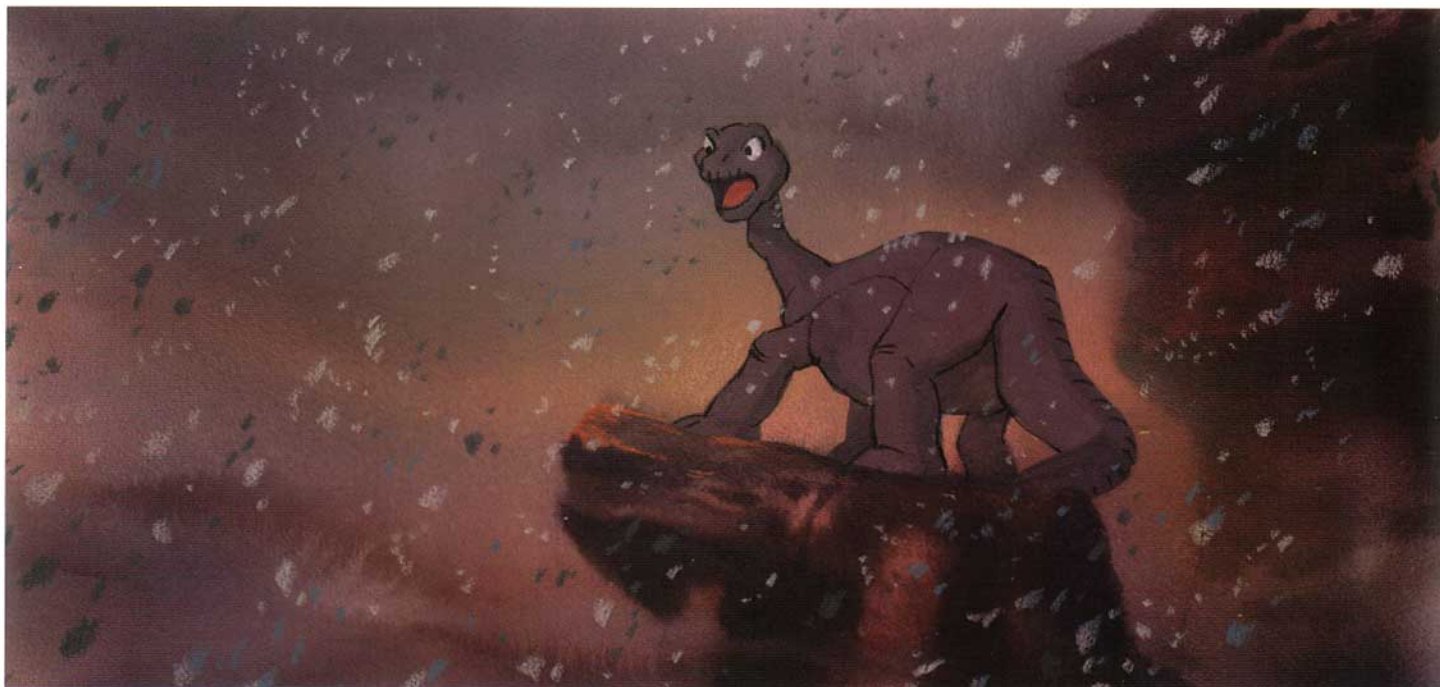


The color keys open up the vision for such a challenge. Finally, the marketing people begin to see the vision of the picture through these mini-paintings and invariably ask for copies to inspire their staff. The purpose of the color key is to inspire and to exalt the spirits of all concerned to higher ground. For those whose enthusiasm may be growing thin, the color keys give them a second wind and a desire to sprint to the finish line.





# COLOR KEYS



## A SCARY STORY



Now in color, the Tyrannosaurus Rex from *The Land Before Time* was unusually dramatic. John, Gary, and I set out for the meeting at the 20th Century Fox's screening facility in London. The unveiling of our work was embraced, as expected, with grins, merry laughter, and even applause. As the lights came up, so did Steven Spielberg and George Lucas. "It's too scary," both remarked. "We'll have kids crying in the lobby and a lot of angry parents. You don't want that," Steven said. "Let's meet at Elstree Studio tomorrow."

The next day, nineteen fully animated and many colored T-Rex scenes were cut from the movie. I mourned for a week. Were Steven and George right to do it? In hindsight, I think yes. *Land* grossed \$72 million worldwide and became one of the supporting pillars for the animation renaissance.







*Bartok the Magnificent* came spinning out of the movie *Anastasia*. It is a musical tale about a Russian witch, Baba Yaga, and stars our old friend, Bartok the Bat. From these color keys, you can see that this piece is lighthearted and comedic. It is a trip through the light-fantastic, in sharp contrast to the dark, heavy colors and shadows that weave the tapestry of *Anastasia*.

*Bartok the Magnificent* is a "buddy" picture. Zozi, a Russian Bear, and Bartok team up to find the young kidnapped heir to the Russian throne. Fox's marketing department caught the vision of this project too late to launch it on the big screen, so it landed somewhere between a feature film and a very expensive video.

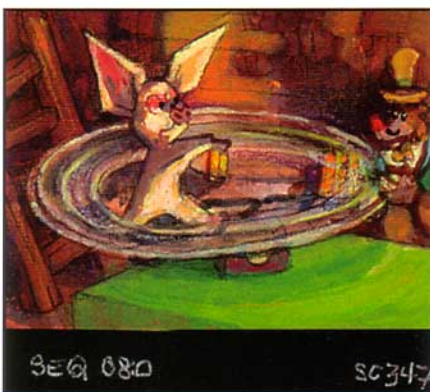
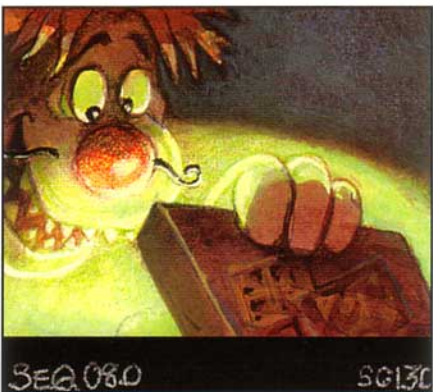




# COLOR KEYS



The color keys on these pages were painted very small, about two inches high. On page 111, you can see the final look of the film. These selections are taken from a not-very-publicized, direct-to-video piece called *Bartok the Magnificent*. It's in your video store. Check it out!

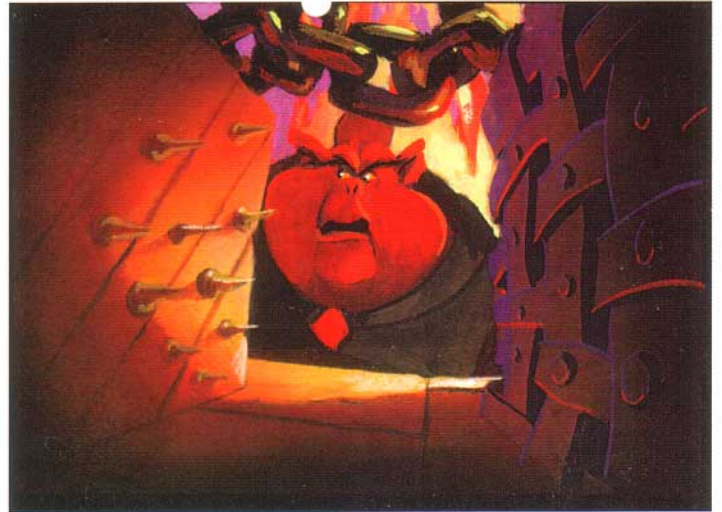
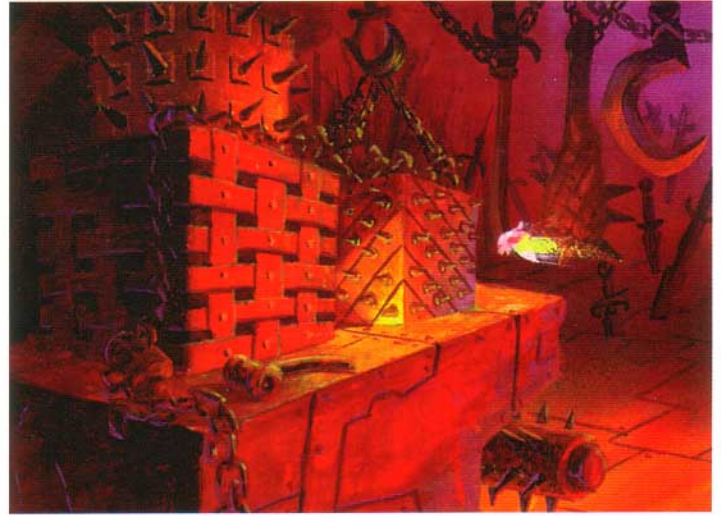






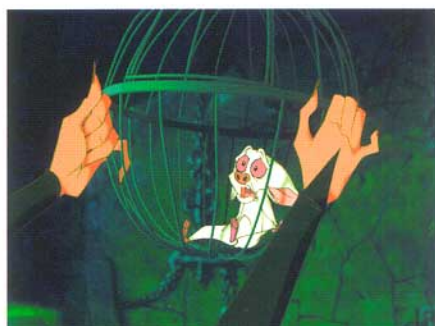
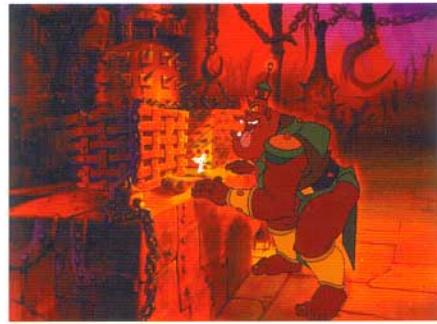
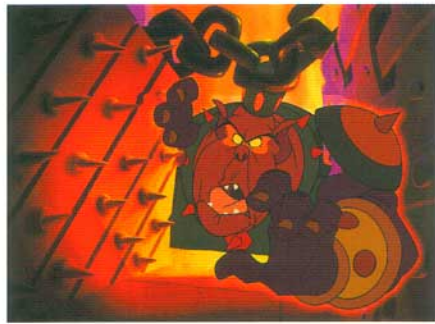


# COLOR KEYS



Well, my friends, that about wraps it up. I hope your understanding of storyboarding has grown. I have no doubt that as you sail the choppy seas of storytelling, you will discover your own wonderful secrets on how to navigate. But whatever you do, remember, the world loves a good story. Find new ways to dream!







# IMAGE APPENDIX

**Front Cover:** *Dragon's Lair* original storyboard art and Dirk the Daring character © 1983 by Bluth Group Ltd. Used with permission of Dragon's Lair LLC. Art by Don Bluth.

**Page 2, 3 & 6:** *The Secret of NIMH* art © 1982 by Mrs. Brisby Ltd. Used with permission. Art design by Don Bluth, color art by Don Moore.

**Page 10:** Dirk the Daring © 1983 by Bluth Group Ltd. Used with permission of Dragon's Lair LLC. Art by Don Bluth, rendered by John Hoffman.

**Page 11 & 13:** Art by Don Bluth, rendered by John Hoffman.

**Page 16:** Art by Don Bluth.

**Page 17 & 18:** Characters from *The Secret of NIMH* © by 1982 Mrs. Brisby Ltd. Art by Don Bluth.

**Page 20:** *The Secret of NIMH* original rough storyboards © by 1982 Mrs. Brisby Ltd. Used with permission. Art by Don Bluth.

**Page 22:** *Dragon's Lair* storyboard art © 1983 by Bluth Group Ltd. Used with permission of Dragon's Lair LLC. Art by Don Bluth. Photos by David Monahan.

**Page 23:** *Dragon's Lair* storyboard art © 1983 by Bluth Group Ltd. Used with permission of Dragon's Lair LLC. Art by Don Bluth.

**Page 24, 25, 27–51:** *The Secret of NIMH* original storyboards © 1982 by Mrs. Brisby Ltd. Used with permission. Art by Don Bluth, rendered by Bill Lorencz.

**Page 52:** *Dragon's Lair II* art © by 1983 Bluth Group Ltd. Art by Don Bluth. Photo by David Monahan.

**Page 53:** Art by Don Bluth.

**Page 54–57:** *Dragon's Lair* © 1983 by Bluth Group Ltd. Dragon's Lair characters used with permission of Dragon's Lair LLC. Art by Don Bluth.

**Page 58, 59:** *The Secret of NIMH* characters © 1982 by Mrs. Brisby Ltd. Used with permission. Art by Don Bluth, rendered by John Hoffman.

**Page 60:** *Titan A.E.* storyboard art and screen still © 2000 by Fox Animation Studios Inc. Used with permission. Storyboard art by Don Bluth.

**Page 62, 63:** Photos by David Monahan.

**Page 64:** *All Dogs Go to Heaven* screen still © 1989 by Goldcrest & Sullivan Bluth Ltd. Used with permission.

**Page 65–82:** *All Dogs Go to Heaven* original storyboards © 1989 by Goldcrest & Sullivan Bluth Ltd. Used by permission. Art by Don Bluth, rendered by John Hoffman.

**Page 83:** *All Dogs Go to Heaven* screen stills © 1989 by Goldcrest & Sullivan Bluth Ltd. Used with permission.

**Page 84:** *Anastasia* screen still © 1997 by Fox Animation Studios Inc. Used with permission.

**Page 85–91:** *Anastasia* original storyboards © 1997 by Fox Animation Studios Inc. Used with permission. Storyboard art by Chris Schouten, rendered by Mike Peraza.

**Page 92–97:** *Titan A.E.* original storyboards © 2000 by Fox Animation Studios Inc. Used with permission. Art by Don Bluth.

**Page 98:** Characters from *Dragon's Lair* © 1983 by Bluth Group Ltd. Used with permission of Dragon's Lair LLC.

**Page 99–103:** *Dragon's Lair II* original storyboards © 1989 by Bluth Group Ltd. Used with permission of Dragon's Lair LLC. Art by Don Bluth, rendered by John Hoffman.

**Page 104–106:** *The Land Before Time* original color keys © 1988 by Universal Pictures & U-Drive Productions. Used with permission. Art by Don Moore.

**Page 107–110:** *Bartok the Magnificent* original color keys © 1999 by Fox Animation Studios. Used with permission. Art by Suzanne Lemieux-Wilson and Ken Slevin.

**Page 111:** *Bartok the Magnificent* screen stills © 1999 by Fox Animation Studios. Used with permission.

**Back Cover:** *Dragon's Lair* original storyboard art © 1983 by Bluth Group Ltd. Used with permission of Dragon's Lair LLC. Art by Don Bluth.



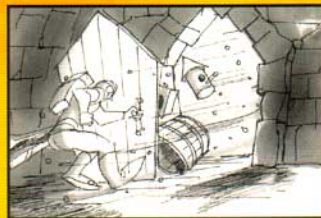
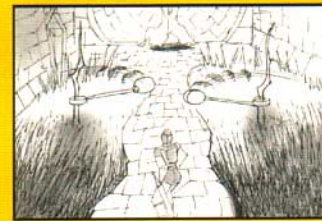




From Don Bluth – master animator, artist, and director of such cartoon classics as *The Secret of N.I.M.H.*, *An American Tail*, *The Land Before Time*, *All Dogs Go to Heaven*, *Anastasia*, and *Titan A.E.* – comes *The Art of Storyboard*, a one-of-a-kind textbook that describes in detail the technical and artistic processes involved in crafting animation storyboards, the visual blueprints that lay the foundation for the animators' magic. Loaded with technical tips and insights into the tapping of the creative imagination, *The Art of Storyboard* takes readers on an exciting journey from the breakdown of a script, through story conferences, and onto the finished boards. Whether used as an inspiring tool for professional and aspiring animators or just for the sheer joy of seeing how the written word is channeled through the animator's mindspace on its way to the screen, *The Art of Storyboard* is a fascinating peek behind the curtain of film's most creative storytelling medium.

*"An incredible resource for all levels of filmmakers and enthusiasts."*

–Larry Lauria, Professor of Animation, Savannah College of Art and Design



\$14.95 U.S.

ISBN 1-59582-007-8

51495>



9 781595 820075

[dhpressbooks.com](http://dhpressbooks.com)

